China

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CHINA'S RELIEF NEEDS

NATIONAL PLANNING ASSOCIATION

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China's Relief Needs

CONTENTS

	INTRODUCTION
I.	TRANSPORTATION External Supply Routes Internal Transport
II.	FOOD Import Needs The Rehabilitation of Chinese Agriculture
III.	HEALTH
IV.	The Present Crisis The Need for Emergency Imports The Restoration of the Chinese Textile Industry_
v.	FUEL FOR DOMESTIC USE
VI.	SHELTER
VII.	OTHER CONSUMERS' GOODS
VIII.	GENERAL INDUSTRIAL REHABILITATION The Industrial Economy of China The Post-War Task The Implications of Industrial Rehabilitation
IX.	UPROOTED PEOPLE
x.	ADMINISTRATIVE PROBLEMS Political Questions Direction and Execution of the Rehabilitation and Relief Program
	Finance

FOREWORD

China, home of over one-fifth of the human race, and the first victim of Axis aggression, has suffered no less severely during the war than have the countries of Europe. Yet the problem of relief and rehabilitation in China has been much less before the public eye. In order to acquaint the American people with these problems, the NPA's Special Project on Relief and Rehabilitation has prepared China's Relief Needs, as the sixth report in its series. This report is an analysis of the current situation in China giving rise to needs for relief and rehabilitation. It estimates the quantities and possible sources of various commodities needed during the emergency period. The implications of a relief and rehabilitation program on the long-term development of China are briefly considered, and plans by China and UNRRA for administering the program are examined.

It is our hope that this report, the first comprehensive analysis of China's immediate post-war problem to be published, will lead to increased understanding among Americans concerning the joint task of China and the United Nations in healing the wounds of

war in that great country.

This report, like others in the NPA series on Relief and Rehabilitation, is the result of combined staff investigation and committee consultation, under the direction of Mr. Clarence E. Pickett, member of the Board of Trustees and Executive Secretary of the American Friends Service Committee. The consultative committee includes: Dr. Eugene E. Barnett, General Secretary, International Committee of Young Men's Christian Associations; Miss Mary Ferguson, Associate Program Director, United China Relief; Mr. Charles R. Joy, Director, Unitarian Service Committee; Mr. Bruno Lasker, Research Associate, American Council of the Institute of Pacific Relations: Dr. W. C. Lowdermilk, Assistant Chief, Soil Conservation Service, United States Department of Agriculture; Miss Ida Pruitt, Executive Secretary, American Committee in Aid of Chinese Industrial Cooperatives; Miss A. Viola Smith, China-America Council of Commerce and Industry; Dr. Eugene Staley, School of Advanced International Studies, Washington, D. C.; and Mr. Pickett.

The NPA is particularly indebted to the American Council of the Institute of Pacific Relations, which rendered invaluable help

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E. J. COIL, Executive Director.

December 15, 1944.



CHINA'S RELIEF NEEDS

INTRODUCTION

For nearly eight years, China has been experiencing the horrors of modern war. Death, hunger, pestilence, forced migration, and other ills in China are on a scale unknown to Europe. The migration of Chinese westward from Occupied China to Free China perhaps has been as vast as if almost one-third of the Americans living east of the Missisippi had moved beyond the Mississippi. Nor has China during these years of war been spared its traditional catastrophes. Floods, locusts, and crop failure have continued to take their toll. Hundreds of thousands have starved to death in China, and millions have suffered from acute hunger. The sheer volume of suffering compels us to think of China, not as another country needing help, but as a continent. In the size of her need, China, is comparable to all Europe, including Russia.

The United Nations, through their participation in the United Nations Relief and Rehabilitation Administration, are committed to help any country which has suffered from invasion by the enemy. America's long friendship with China, and our tradition of humanitarian activity overseas, makes Americans especially concerned about cooperating with China in healing her wounds of war, once China's needs are understood. The purpose of this report is to indicate the size and nature of the emergency needs of China. Emphasis is on the role that the United Nations, and particularly the United States,

may be expected to fill.1

It will be to the interest of the United Nations to insure the well-being of China in the post-war years. Recent experience has demonstrated that privation in any part of the world is a threat to peace and prosperity everywhere. Furthermore, a program of relief and rehabilitation in China may prove a blessing to American industry in the post-war period. Chinese demand for American manufactured goods and industrial equipment will help to cushion the shock of reconversion, when some of our industrial plant, greatly expanded for war, may be idle. In the long run, too, it is to the advantage of this country that China be prosperous. By helping to restore eco-

¹The National Planning Association is at present gathering information on the emergency needs in other areas of eastern Asia, viz., India; the Philippine Islands; the Netherlands East Indies; Burma, Thailand, and Indo-China; Malaya; Korea; and Japan.

nomic activity and purchasing power to the peoples of the East during the post-war period, this country will be creating for itself a valuable foreign market for the future.

While the magnitude of China's immediate post-war needs may be roughly comparable to all Europe's, the nature of these needs is decidedly different. In some ways, it will be easier to meet China's problem than Europe's. Eighty percent of China's people are farmers. For the most part, they have kept on farming as before the war. Thus, the Chinese economy has millions of almost self-sufficient roots, each attached to the soil.

On the other hand, the simple nature of economic life, although it renders the area less sensitive to the shocks of blockade, devastation, and other vicissitudes of war, also reveals itself in a lack of transportation, and an absence of welfare services. These deficiencies

will hamper measures of relief and rehabilitation.

China's greatest need during the emergency period will be for enough aid to manage, with her own resources, to feed, clothe, and house her own, rather than for direct relief. While such aid is being initiated, some direct relief for the victims of war will be necessary as a stop-gap measure. But any agency or group of agencies would bog down if it tried to feed and clothe all the Chinese who need such help. Indeed, the world has insufficient resources of food and clothing to perform such a never-ending job as supporting by gift one-fifth of the human race. China must grow her own food, and make her own cloth. To help her to do so is the fundamental task of any international program of relief and rehabilitation. It will be a much quicker and cheaper job than a dole, and will be of permanent benefit to China and the world.

Such a program implies the repair of railroads, and even the construction of spinning mills. To end the suffering caused by war requires above all the restoration of trade and of buying power. These various functions cannot all be described as "relief", "rehabilitation", or "reconstruction", nor can they all be undertaken by UNRRA alone. But UNRRA's task will be immensely facilitated if long-range reconstruction can begin soon.

This report uses the term "emergency needs" to indicate what is required to stop the war-caused suffering. Any measure which will help restore the pre-war standard of living within two years after

its adoption can be considered an emergency measure.

The "emergency period" is assumed to begin as soon as an area is in Allied hands, the fighting is over, and supplies and services

can be brought in. The pattern of reoccupation is unpredictable, but it will have an important influence on the task of rehabilitation: for instance, some areas have surpluses of food, while others have deficits. Recognizing that liberation of the various parts of China will proceed piecemeal, for purposes of brevity and simplicity, China is treated here as if it were to be opened up to the rehabilitation authorities all at once.

It is assumed in this pamphlet that the bulk of Europe's emergency needs will have been met before the relief program in Asia is fully under way. If this assumption proves talse, some of the tentative estimates made here of the quantities of certain commodities which can be spared for China might have to be scaled down.

All statistics should be regarded as considered approximations. The subject matter of this pamphlet is such that much of the information becomes obsolete very rapidly, as the situation changes. All estimates of relief needs are subject to constant revision.

"China" in this discussion means the whole pre-1931 Chinese Republic, comprising the 23 provinces of "China Proper" 2, the province of Sinkiang, the tour provinces of Manchuria, the special municipalities, and the special areas of Mongolia and Tibet. In addition, Formosa is included, since Chinese estimates of post-war needs take this island into account. Actually, Mongolia, Tibet, Sinkiang, and the provinces of Chinghai and Sikang will not present reflet problems. Also, the situation in Manchuria and Formosa, regions with an export surplus of agricultural products, is quite different from that in the 23 provinces of "China Proper", but these two areas have been included in official Chinese post-war plans. Most of the generalizations in the following pages are especially applicable to China proper.

It is also necessary to distinguish between "Free China" and "Occupied China". Actually, little of China outside some of the cities is completely occupied. Occupation extends no farther than the Japanese bayonet. Japan holds most of the major cities, and a number of points and lines, including many all-important communication lines. But the countryside itself in "Occupied China" is really a vast guerrilla territory. Various provisional Chinese governments and the usual local governments function within the occupied regions,

³ Kiangsu, Chekiang, Anhwei, Kiangsi, Hupeh, Hunan, Szechwan, Sikang, Shantung, Shansi, Honan, Hopei, Shensi, Fukien, Kwangtung, Kwangsi, Yunnan, Kweichow, Kansu, Chinghai, Ningsia, Suiyuan, and Chahar.

maintaining varying degrees of liaison with the Chungking Government.

However, the impact of Japanese occupation has extended far beyond their bayonets. The conquerors have ruthlessly exploited the mineral deposits; they have appropriated the industrial products of the eastern cities and have undermined the rural economy. They have wantonly harnessed China to their war chariot.

It is thought that at least 40 percent of China's people live in territory technically designated as Occupied China. The rest live in Free China. In both parts, however, there are substantial areas controlled by the so-called Communists. According to their own generous estimates, Communists control in Occupied and Free China over a million square miles, with a population of some 86 million.

China's economy is a hundred years or so behind Europe's and America's. Before the war, it barely sufficed to keep most of the Chinese alive on a very low standard of living. The war has put a terrific strain on this economy. Millions more than usual are suffering acute want. Because this want arises from Japanese aggression, its relief is a responsibility of the United Nations, and specifically that of UNRRA. The most efficient way to bring this relief is to improve the economy itself, helping the Chinese people to help themselves.

Although international aid is needed, the ultimate responsibility is China's. There are indications that the Chinese Government plans to shoulder its share of responsibility. It is planning to establish a National Relief and Rehabilitation Administration with full authority over the policies and operations of relief and rehabilitation. This administration would mobilize existing branches of the Government, and would coordinate the aid of private and foreign agencies, including UNRRA, with its own activities.

Not only has the Central Government made plans and taken steps; similar action has also been apparent in the regions held by the Communists.

Chinese private agencies, like the Chinese Red Cross, and the Buddhist, Mohammedan, and Taoist relief societies, will inherit part of the burden of national reconstruction, although the Chinese Government will be predominant.

Americans should remember the enormous odds against which the Chinese, a rural and poor nation, are struggling in their "war of resistance and reconstruction." Although no outside agency can perform the task of reconstruction for China, whether she succeeds or

fails depends in no small measure upon the willingness of other nations to work with China toward its rehabilitation. In the long run, the greatest contribution of the foreign groups, both official and non-official, will be to pass on their knowledge and skills to the

Chinese, thus making their presence no longer necessary.

The total task, according to Chinese estimates submitted to UNRRA in September, 1944, will involve the import of about 10 million tons of supplies, valued at around -2.5 billion American dollars, and an internal expenditure equivalent to almost one billion American dollars. The total cost envisaged is thus almost \$3.5 billion. Of this total, China is asking UNRRA for close to a billion dollars worth of goods ³ weighing about 4 million tons, for the services of over 2,000 technical experts, and for fellowships for several hundred Chinese experts to go abroad for further training. All estimates will be subject to constant revision by both the Chinese and UNRRA. Table I summarizes the Chinese Government's most recent estimate.

The following pages describe the component parts of the emergency task in China, with emphasis upon the role of foreign groups. The emergency task is to ease the suffering caused by the war. It is merely confusing to try to differentiate between relief and rehabilitation in this context. All the component parts must be tackled at once.

I. TRANSPORTATION

"Of the relief and rehabilitation needs in China, transport comes first," said the Chinese delegate at the Atlantic City Conference of UNRRA in November, 1943. "Without transport facilities," he continued, "whatever supplies and services UNRRA might send to China, they would be piled up at the ports and will be of no use to the Chinese people."

The more efficient transportation can be made, the smaller will be the import requirements for relief commodities. For example, with good crops (such as China enjoyed in 1944), relatively little food for relief would have to be imported if Chinese-grown food could be moved efficiently to areas of need. The Honan famine of 1942 was attributable much more to the inadequacy of transportation than to a nationwide food shortage. The importance in Chinese eyes of aid to transport is indicated by the fact that one-third

The estimate of the monetary value of the import requirements does not include the cost of transportation.

TABLE I.

Summary of Total Requirements of China's Relief and Rehabilitation Program and of China's Material and Personnel Requests from UNRRA

Tota	Total Requirements	ints	Material Requests	equests fro	om UNRRA	Personnel	Material Requests from UNRRA Personnel from UNRRA
Chinese		Imported		Imported	% of total	Foreign	Foreign
expenditures	on.	supplies tonnage		tonnage	supplies tonnage rqtd value	experts	
Ch\$		(metric tons)		metric tons	~		
100,000b		3,271		1,254			
150,000b		1,098		145			
100,000b		1,050		50			
246,515		74		74		885	240
430,964		3,397		1,606		p	p
206,700b		759		663		39	59
1,153,500		564		189		1,080	Ð
139,570		12		6		22	
160,817		27		27	3.4	230	100
360'68		-		5,633 1		ਰ	
2,727,164	2,529,677	10,253	945,046	4,018	100.0		

^a Fellowships for Chinese experts to go abroad for further training.

b Internal distribution costs of a part of the total program carried through with the supplies now requested of UNRRA. Including US\$850,000 for foreign experts and US\$1,200,000 for foreign fellowships.

d Not yet determined.

Including US\$275,000 for foreign fellowships for Chinese experts, but not including costs for foreign experts. *Requirements for rehabilitation of fisheries and rural industries not yet determined.

of the total weight of emergency imports which the Chinese estimate they need is for transportation and communications equipment. The Chinese estimate of import requirements for transportation in the first 18 months is 3,397,000 metric tons, of which approximately half is for railway transport. The transportation requirements include items for the rehabilitation of telecommunications and postal service.

Chinese experts estimate that 50 percent of the relief supplies will have to move by waterways, 30 percent by rail, and 20 percent by highways. The proportion which can be carried by air is negligible. China still relies primarily on the age-old methods of transport by water, cart, wheelbarrow, and human back. The task will be two-fold: to open up the ports and provide shipping, and to rehabilitate China's internal transport system.

External Supply Routes

Nearly all supplies for Occupied China, after it has been reoccupied, will have to come from overseas. Though China as a whole normally is fairly self-sufficient in basic commodities (including food), the coastal cities, and some whole provinces, notably Kwangtung, relied on rice imports from Indo-China and elsewhere. Dependence on overseas products will be even greater in the emergency period. Central and western China will have to import many of their requirements through eastern China. There may be small amounts of food in western China which could be sent eastward.

1. SEA ROUTES—Seagoing vessels will have to be diverted to China to compensate for Japanese and Chinese losses. (Japan has confiscated or destroyed many Chinese vessels, including junks.)

Eastern China has many good ports. Installations of some of them have already been dismantled by the Japanese; and before reoccupation is complete, considerable damage may have been done. If this is the case, port facilities must be rebuilt at the earliest possible moment, assuming that this has not already been done by the military.

Similarly, shipbuilding facilities in Shanghai may have to be rehabilitated if suitable military craft are not made available in sufficient numbers as war surplus in eastern Asia. Launches, tugs, lighters, and other small craft ancillary to a great port must be built in China, to make up for Japanese confiscation or destruction.

2. OVERLAND ROUTES-Although the ocean will be China's

principal external supply route after the war, the several back-doors can be used in the emergency period to bring vital supplies to western China.

The only two overland routes to Free China now open are the famous India-China air route (over the "hump" of the Himalayas), and the Sino-Soviet highway, connecting western China with Russian Turkestan. By the beginning of October, 1944, the air route was carrying only around 20,000 tons a month, according to President Roosevelt.

Soon after the end of the war, however, three other routes may prove useful: the Burma Road, the Kunming-Haiphong railroad (from Yunnan province to the coast of Indo-China), and the Yunnan-Burma railroad. Indeed, one or two of these routes might be operating before the end of the war. It is believed that within a year after the fighting, the three routes together could be improved to carry well over a million tons a year. To enable them to do so would require considerable material and technical aid, to say nothing of augmenting the fleet of vehicles and the supply of fuel. In any case, these western routes will be less important than the sea routes, considering China's estimates of import needs for around 10 million tons in the first 18 months.

More cargo planes are now needed on the India-China route for carrying technical experts and certain strategic relief supplies like medicines. However, planes will be important only in the earlier stage of the emergency program. The airplane's role will be limited to carrying goods with a small weight in proportion to their value.

Internal Transport

The inadequacy of communications within China will be far graver than the weakness of her links with the outside world. War has made the situation with regard to internal transportation worse. During the emergency period, the system will have to be improved; for otherwise relief supplies will not be distributed, and efficient rehabilitation of the other parts of the economy will be impossible.

1. WATERWAYS—Shipping is of primary importance in both Free and Occupied China. Chinese authorities state that the import requirements to provide waterways transport, both coastal and inland, will amount to almost a million tons during the emergency period.

The main rivers alone furnish 9,000 miles of waterways navigable by small steamboats, and perhaps another 20,000 miles of

river are navigable by good-sized junks. Rivers are the cheapest means of carrying goods in China; and it is of special importance to rehabilitate the steamship fleet, since transport by steamboat is considerably cheaper than by junk. For example, high-powered boats of shallow draft are needed to manage the turbulent Yangtze between Ichang and Chungking. Large amounts of canvas and chandler's supplies will have to be imported, and perhaps timber as well, to re-establish the fleet of junks and smaller vessels.4

2. RAILROADS-A burden beyond their capacity will fall on the 7,000 miles of railway in China proper. This mileage, of course, is woefully inadequate; but on account of the complexities of shipping and construction, it is unlikely that much new mileage can be built during the emergency period. Emphasis must be on repair of existing lines and equipment.

There has already been serious deterioration of railroads in Free China; and by the time Occupied China is regained, the Japanese probably will have destroyed as much as possible. The first need will be for the repair of rolling stock, and for the import of a number of new locomotives and cars. Secondly, rails and even roadbeds will need to be repaired.6

The tonnage of imported railway equipment needed in the first 18 months after fighting is estimated by Chinese authorities at about 1.75 million metric tons. Approximately one-third of this will be rails and their accessories. Rolling stock will be the second largest

item by weight.7

3. ROAD TRANSPORT-The internal highway system of China is vital to the distribution of relief supplies. About 20 percent of such supplies will have to be moved by highway, it is estimated. The state of China's road transport in 1943 is illustrated by W. Mackenzie Stevens, travelling in China for the Department of State, who writes:

⁵ In 1943, railway mileage in Occupied China was about 5,380 miles; and in May of that year, Free China reported 1,244 miles.

On the other hand, since a large-scale Allied drive in China would necessitate the repair of the railroads and other carriers by the military, the Chinese may find some of the rehabilitation done for them before reoccupation is complete.

⁴ In 1937, Chinese imports of cotton canvas and duck, mostly for junk sails, were 1.6 million yards. By 1940, the figure was only 124,000 yards.

⁷ At present, each part of China has enough coal to operate the railroads in it; but the Japanese may damage the mines in eastern China, which produces two-thirds to three-fourths of the nation's coal, as they retreat. Coal will not be so scarce that the railways will have to rely on imports.

I have ridden in a camphor oil bus made from an old Chevrolet car, with a wooden body holding 35 people, crowded on top of one another around the edges, the center of the car loaded full of freight and baggage. . . . The crowding is so close that one can scarcely move a muscle, but this is readily compensated for at the first hill, where we all have to get out and push. The camphor oil fuel also has its advantages. If one has a cold, the camphor oil clears the nasal passages. If one does not have a cold, the fumes soon convince one that he has.

China has only 85,000 miles of highways (exclusive of Hongkong and Manchuria); and, of these, a mere 20,000 are surfaced roads.8 Less than a quarter of this mileage is in Occupied China. "Highways" is perhaps a misnomer. Almost none of China's highways is metaled. Hairpin turns and shaky bridges, many incapable of taking more than 6 tons, abound. Ferries are much more common than bridges.

In order that highway transportation may do its share in the emergency period, a three-fold program of rehabilitation and improvement must be pursued. The roads must be made more serviceable; vehicles must be available, along with personnel for their operation and maintenance; and, most important, enough fuel must be provided.

China's road network as a whole has not deteriorated since the war. In Free China, much new mileage has actually been constructed. However, in the border between Free and Occupied China, considerable deliberate destruction has occurred to hinder Japanese advance. The repair of this damage, the improvement of other roads, and the building of some new roads can be done mostly with Chinese equipment and supplies. It will be possible to start the construction of several new roads as soon as the war is over.

More difficult than rehabilitation and construction of highways will be the provision and maintenance of an adequate fleet of vehicles. The present number is much too small, especially considering that probably fewer than half of them are actually running. Many of them are awaiting repairs, and a still larger number are immobilized because of fuel shortage.

Two things are necessary to put the broken-down trucks back into service. First of all, spare parts have to be imported. Secondly, better maintenance could be furnished even without additional imports of

⁸ This is one mile of surfaced road for 22,250 Chinese, compared to one mile of surfaced highway in the United States for 245 Americans.

spare parts if there were more trained Chinese mechanics and repair

shops.9

In addition to the repair of existing vehicles, a number of new trucks must be imported. The Chinese estimate submitted to UNRRA signified a need of over 34,000 vehicles, largely trucks, during the first year and a half, with an average weight of 3 tons.

Motor vehicles will not supersede the simpler and far more common rickshaws, bicycles, wheelbarrows, carts, and human carriers in the post-war period. The first year of peace will not be a suitable time to stage a revolution in Chinese transport. It will pay to import repair materials and tires for man- and animal-propelled vehicles and to restore as quickly as possible the diminished numbers of beasts of burden.

Fuel is China's most critical transport need. China's "normal" needs for gasoline in pre-war years were almost 50 million gallons a year. A very small fraction of this was produced domestically, and the rest was imported. Free China's production of gasoline was only 1.8 million gallons in 1942. Oil reserves in Occupied China are negligible, and only a small amount of shale-oil is produced in Manchuria. Since 1942, Free China's production has gone up somewhat, but in all probability is still less than 4 million gallons per year. In short, China does not produce enough to keep more than perhaps a thousand trucks operating. China's output of gasoline can be somewhat augmented by sending in refining machinery; 10 but, even so, China will continue to rely upon imported gasoline. On account of the extra reliance to be placed on road transport during the emergency period, China will need to import about twice as much gasoline as before the war. Probably close to 100 million gallons will be required in the first year.11

Tires are critically needed in China and will continue to be after the war. There are no tire factories in Free China although some retreading plants exist. Occupied China has (or had) a negligible output of tires, and the country as a whole has always depended largely upon imports. Before the war, for example, China normally imported 75,000 motor car tires and the same number of tubes. That was seven years ago, and, by now, China's need for imported tires is estimated at over 200,000.

¹⁰ Another urgent need of China's petroleum industry is containers to carry the gasoline. Metal containers, of course, are extremely scarce; and so far no

suitable container made of substitute material has been devised.

¹¹ At present, many of China's trucks are running on substitute fuels, such as charcoal, vegetable oil, and particularly alcohol. It is estimated that the total output of all substitute fuels is around 15 million gallons, four-fifths of which is ethyl alcohol. The best that can be said for these fuels is that they keep the trucks going. But besides being inefficient, troublesome, and a drain on the supply of wood, molasses, rice, and potatoes, they have a bad effect on the engines. The sooner they can be dispensed with, the better.

II. FOOD

In both Free and Occupied China the war has brought severe suffering from hunger to many people, acute shortages occurring in some districts even when the country as a whole has good crops. The food shortage must be met by a two-fold program: first, the provision of emergency imports of food to halt famine in the deficit areas; second, the restoration and improvement of Chinese agricultural production in order to reduce the need for imports to a minimum. These measures complement each other.

An understanding of normal Chinese food production and imports, and of the effect of the war, is necessary before the post-war import requirements can be appraised. It is estimated that China's pre-war production of major foodstuffs under normal circumstances was sufficient fully to meet the needs of 90 percent of the population. "According to the customs reports of the pre-war years," says Contemporary China of April 19, 1943, "the amount imported covered on the average only one-quarter of the deficiency (of ten percent). The result was that China had enough food for 92.25 percent of the population. What actually happened was not that 7.75 percent of the people (or 33,000,000) had to starve, but that a very large percentage did not have enough to eat. Such was the normal food situation in China."

The imports were consumed largely by residents of the great seaports. These urban centers are, therefore, highly dependent upon overseas imports, especially as the inadequacy of internal transport has always prevented their getting the small "surpluses" from the interior. Average per capita consumption in the cities has always been lower than in rural areas.

In general, what is now Occupied China has been a deficit area; and Free China has had a small surplus, some of which was normally sent eastward.¹²

Many Chinese have always lived only slightly above the line of real hunger. Almost every year some natural disaster or man-made crisis has caused thousands or millions to fall below this line, and the terrific famines for which China is famous have resulted.

¹² The Agricultural Research Bureau in Nanking reported in 1934 that, for all China, cereals made up 81 percent of the diet by weight. (In the United States, only 13 percent of our food is grain products.) Meat represented only 4 percent of the Chinese diet. However, there are important local variations. North China eats mostly wheat, with a little rice. South China relies very heavily on rice, supplemented by sweet potatoes. Central and western areas have a mixed diet, relying interchangeably on rice and wheat.

The present war has caused a major series of famines and widespread hunger throughout large parts of the country. Not only have imports from overseas been cut off, but shipment of food from surplus areas of Free China to deficit areas of Occupied China has been almost stopped. (Also, Free China's need for food is greater now because of the influx of refugees.) The Japanese have requisitioned, or bought at fixed prices, considerable amounts of food in the parts of China where they maintain control. Japanese conquest has occasioned an appreciable decline in food production in Occupied China and a small decline in China as a whole.

Fortunately, however, even in Occupied China, the Japanese do not actually control much rural territory. The following account of conditions in Chekiang and Kiangsi by Charles H. Corbett gives a picture of the difficulties facing farmers during military operations there:

The food situation was seriously affected by the Japanese invasion. The armies lived off the country during the campaign. When they were ready to evacuate they burned all the grain that had been harvested, except what they carried away with them. The Japanese devoured or drove away thousands of oxen and other farm animals, which seriously handicapped the farmers in subsequent farm operations. Their agricultural implements had been destroyed, the wooden parts being burned and the iron carried away by the Japanese.

In the fighting zone the farmers, though hiding in the hills not so very far away, were not able to irrigate their rice fields and the rice dried up. Farther west, near Linchwan, where they ordinarily got a second rice crop, the farmers could not get it planted. In that general area, the estimate of the total crop is not more than 50 percent of normal.

When the Japanese had gone, it was found that irrigation systems had been destroyed so that they could not be used without extensive repairs.

One of the most serious consequences of military operations was the breaking of the Yellow River dikes for strategic reasons. As a result, the Yellow River has changed its course and now flows into the Yangtze River downstream from Nanking, instead of into the Gulf of Chihli 400 miles farther north. The river, pouring through a crevasse in the dike some three-fifths of a mile wide, has inundated over 13,000 square miles of rich farm land in Honan, Anhwei, and Kiangsu provinces, with a population of over 6 million.

In general, food production in Occupied China has fallen, not only because of general devastation and flooding, but because of loss of draft animals, lack of fertilizers, increase of acreage devoted to opium 13, the manpower shortage, and an increased severity of droughts and floods. These adverse conditions have been particularly prevalent in northern China.

In Free China, on the other hand, it is probable that food production has increased since 1939.14 This remarkable achievement is in no small degree attributable to the measures of the Central Government in fostering agricultural improvements, and in extending credit to farmers.

Famine has been general in two great provinces of China, Kwangtung and Honan, for two or three years. In addition, less serious famines have occurred in Chekiang and Kwangsi. From Kwangtung, some 200,000 Chinese fled to neighboring Kiangsi, seeking food. People ate bark, and rice was sold by the grain. In the city of Toishan (Kwangtung province), it is said, 40 percent of the population had died of starvation in the first eight months of 1943. "People of the middle class, too proud to beg, are dying in their homes behind closed doors. The countryside gives mute evidence of the desolation. Skulls and corpses are everywhere. The poor are practically exterminated." 15

Although most of the relief food will probably go to city dwellers, it is imperative that it also reach the rural famine areas. In this way, the hordes of hungry country people who will besiege the coastal cities seeking food and employment will be kept at a minimum.

¹³ The Japanese are forcing farmers to grow more opium, in contrast to the policy of the Chungking Government. According to the Anti-Opium Society, the land in China growing opium could produce annually as much rice as was imported per annum before the war.

¹⁴ Using 100 as the index number for average annual production of *major* foods from 1931 to 1937, in the fifteen provinces of Free China, production in subsequent years has been as follows:

1931-37)0	1	97
1938)2 194	2	99
1939 10)2 194	3	106
1040	12		

(These figures, with the exception of that for 1943, are derived from a table in "Free China's Agricultural Progress", by Guenther Stein, in Pacific Affairs, September 1943, page 341. The figure for 1943 is taken from Foreign Commerce Weekly, January 8, 1944, page 23.)

When the production of minor foodstuffs, such as vegetables, poultry, eggs, hogs, sugar, and fruit, are taken into consideration, food production is still greater than these figures indicate. Agricultural output in 1944 is reported to be larger than in 1943.

¹⁵ Letter to the Church Committee for China Relief.

Import Needs

Imports in the immediate post-war period must be sufficiently large to halt the severe hunger that exists in the coastal cities which have in the past relied upon imported food, and to end the famines caused by the war. Additional imports will be necessary to help relieve the emergency shortage throughout Occupied China resulting from the diminution in production there. 16 The Chinese Government, in its estimates submitted to UNRRA, does not consider that Free China will require imported food. Experts estimate that food imports to China will be necessary on a much larger scale than before the war for at least a year after the end of the war, depending somewhat upon the season when reoccupation takes place, and to a large exent upon the progress of the rehabilitation of internal transport. After one year, imports can taper off gradually. At least 30 million people will have to be fed on imported food during the emergency period, say 3 times the number for whom food was imported before the war. From 1931 to 1938, inclusive, China imported over a million tons of food annually (almost all wheat and rice).17 Therefore, in the first post-war year, imports should be at least 3 million tons. The Chinese estimates submitted to UNRRA regard 3,270,800 tons as the absolute minimum. The importation of this amount will not bring an end to acute hunger in China. The figure was set with reference not only to "needs", but also to the availability of supplies.

The general level of consumption has not fallen so low in either part of China as to require emergency feeding for the "average" consumer. It is the residents of special famine areas and of the coastal cities, the refugees, the orphans, children, nursing mothers, and pregnant women who need imported food.

1. TYPES OF FOOD AND POSSIBLE SOURCES—China's emergency needs for food are so large that they cannot be met unless there is international cooperation. Rice and wheat will be China's two main food requirements in the emergency period: rice for south China and wheat for north China. The Chinese Government estimates that rice imports during the first year should be 1.5 million

¹⁶ It has been estimated that in 1943 food supplies in Occupied China allowed only about 325 kilograms a year per capita, compared with a pre-war consumption of some 377 kilograms. (In the United States, per capita consumption is over 700 kilograms.)

¹⁷ The average rice imports of China, from 1931 to 1938 inclusive, were 795,000 metric tons a year, in terms of cleaned rice. Imports of wheat amounted to over 300,000 tons a year.

metric tons. More than 1 million tons of wheat and in addition some 70,000 tons of sugar will be needed.

Since rice surpluses in non-Asiatic countries are negligible, the rice (most of which China expects to buy independently of UNRRA) must come from the surplus-producing countries of Asia, viz.: Indo-China, Thailand, Burma, Korea and Formosa. These five countries in the immediate pre-war years exported over 7 million metric tons of rice (in terms of cleaned rice) a year. However, rice production in Burma and Indo-China has declined as a result of the war and cannot be increased quickly. Consequently, the post-war surplus will be less than 7 million tons. In the period 1936-38, India and Japan together imported about 3 million tons a year. Non-Asiatic markets took close to 2 million more. Even assuming that other rice-importing nations take less than before the war, it is still likely that the amount of rice available to China in the first year after the war will not be more than the 1.5 million tons, her minimum need.

China's need for wheat will be easier to meet. The import requirements are set at 1 million tons. 18 Australia alone can probably supply this without any difficulty. Her surplus available for export in July, 1944, was almost 2 million tons. Other large surpluses will exist in Canada, Argentina, and the United States. It may indeed be necessary to send more than 1 million tons of wheat if the rice requirements cannot be met. World supplies of sugar will be enough to meet China's request.

Besides these staples, China will want to import 45,000 tons of vegetable oils and about 650,000 tons of protective foods. The main protective food needed is dried beans of which 200,000 tons must be imported. Most of these will be soya beans. Two-hundred fifty thousand tons of fish and meats are listed. The other 200,000 tons of protective foods are meat-soup powder, fruits, milk powder, dried vegetables, egg powder, cod-liver oil, and calcium lactate.

Although there is at present a world shortage of protective foods (including the meat and dairy products China asks for), China's estimated import requirements are not so great as to pose an insuperable problem. When it is possible to begin relief in China, world production of these items will still be a high level. Probably the bulk of China's imports of sova beans, meat, dried milk, dried soup, and vitamin concentrates will come from the United States. If the United States supplies China with the bulk of her relief require-

¹⁸ China requests that at least two-thirds of this amount be sent in the form flour.

ments of protective food, there would still be a greater supply left for the American consumers than they had during peace time, except possibly for certain items. Whether with respect to such items Americans will be faced with the choice of rationing or letting hundreds of thousands of Chinese starve, cannot be predicted at this time, since it depends on such unknown factors as the crop situation and the size of European relief needs.

All these imports will not be a gift to China. The Chinese Government has asked UNRRA to supply 1,254,000 tons out of the total import requirements of 3,270,800 tons. This is a little less than two-

fifths.

2. ADMINISTRATIVE PROBLEMS-Relief of the soup-kitchen and bread-line type should be avoided as much as possible. Comparatively little food need be distributed by these means if the regular commercial channels of distribution are operating smoothly. To

make them do so is the principal administrative task.

The crux of the problem is commodity and price control. Much of the hunger in Free China today is attributable to inflation and related derangements of the distributive system, rather than to actual dearth of food.19 Reports from Chungking indicate that by March, 1944, prices were approximately 300 times higher than in 1937, and still rising 10 percent a month. Inflation has caused hardship in Occupied China as well. Prices in Shanghai are apparently higher than in Chungking.20

Unless the Chinese Government succeeds in the difficult task of controlling this inflation, imported food cannot be sold at reason-

able prices in stores.21

¹⁹ Rural people, representing 80 percent of the population, have not suffered seriously from inflation; but it is generally the other 20 percent that are hungriest in China today.

"Inflation in Free China has had its most devastating effect upon professional and government workers, whose salaries have increased perhaps only 4 or 5 times.

" One cause of the inflation in Free China is an increase in consumption because of the influx of refugees and the expansion of the Army. But more important causes are considerable hoarding and inadequate transportation. Also, governmental expenditure has been greatly increased by the war while the two main sources of revenue, the customs and the salt tax, have been reduced to almost nothing. The Government has therefore had recourse to the printing press.

Increase in the costs of food production may be a minor contributing factor, but hoarding is certainly more important. One half Szechwan's rice crop in 1942 went to the landlords, and the rise in prices made the hoarding of it profitable.

The Chungking Government has taken measures to combat inflation and to

If the quantities of food suggested on pages 15 and 16 are actually imported, if transportation does not prove too much of a problem, if the Central Government and local authrities can control inflation and establish fairly effective price and commodity controls, the need for soup-kitchen relief will be reduced to a minimum. But it cannot be eliminated until the first harvest after reoccupation at the earliest. In the cities, centers for the distribution of food will have to be set up. Even here, food should not be given away free except when absolutely necessary. In many cases, it will be possible to establish a form of work relief.²²

A different pattern of food relief administration will emerge in different areas, reflecting the varying conditions. In most places, local government will be restored quickly enough (if it has ever disappeared) to provide the supervision of relief programs. Where UNRRA food is distributed, a representative of that agency will be consulted and may, in some instances, assist in organizing and supervising the programs. Various mission groups, Chambers of Commerce, Buddhist, Mohammedan, Taoist, and Christian churches and other organizations will be anxious to cooperate with one another

(Continued from page 17)

assure more equitable distribution of food. Severe penalties are enforced against the hoarder. More important, the government collects land taxes in kind, and makes compulsory purchases of grain. By these devices it acquired almost 4 million metric tons of rice and wheat from the 1943 harvests, and expects an even greater amount from the 1944 harvests. While this program has failed to keep down prices for the consumer generally, it has assured the provisioning not only of the Army, but also of government civil servants, who get a food allowance in kind, in addition to their salaries. The value of grain paid as a tax in kind is set at a figure based on the pre-war price of grain. This makes it possible for the government to distribute grain below market price to the Army and to civil servants.

Just before Japan's conquest of Shanghai, close governmental control over the sale of food in that city proved very useful in keeping the price down and in assuring equitable distribution. The municipal authorities acquired large stocks of rice which they sold in installments to registered stores. Finally, the administration obtained a complete monopoly on rice stocks, some of which it sold in its own stores, the rest through closely supervised private shops. The Municipal Council not only established price ceilings on rice; it also introduced rationing of rice and flour. Such controls reduced widespread misery and perhaps prevented actual famine in China's greatest city. Similar controls will be desirable in Chinese cities where acute scarcities of food exist upon reoccupation, although the difficulty of organizing effective controls in China, where the rate of illiteracy is high, and trained administrators are few, must be recognized.

²² Heads of families certified as needy can be given jobs in private or public rebuilding projects. The workmen would be paid in tickets entitling them to food at distribution centers. By this method, the sting of "charity" would be eliminated, and much useful work accomplished into the bargain.

in carrying out a common program. With proper initiative from one of these groups, from the government, or from an international representative, such cooperation can become a reality, as it was in Shanghai during 1937, when the city was flooded with refugees.

The Rehabilitation of Chinese Agriculture

In the opinion of Dr. Tsiang Tingfu, Chinese delegate to the UNRRA Conference of November, 1943, "After the first six months China might get along without food relief in large measure if agricultural rehabilitation should have been properly managed in the meantime."

The United Nations have some responsibility for the rehabilitation of Chinese agriculture because agricultural production in China has been seriously deranged by the war. If it had not been for the war—in which China was the first of the United Nations invaded—farm output and peasant prosperity would probably have increased during the last eight years in China as a whole, instead of having declined.

There follows a discussion of some of the main problems that must be faced and the chief contributions needed from overseas. The Chinese estimates submitted to UNRRA indicate a need for three-quarters of a million tons of imports for agricultural rehabilitation, for about 40 foreign experts, and for fellowships for foreign study for over 50 Chinese agricultural technicians.

1. AGRICULTURAL PRODUCERS' GOODS—Chinese production, especially in areas now occupied by Japan, cannot be satisfactorily restored until farmers have sufficient supplies of seeds, fertilizer, draft animals, and implements. The United Nations can supply some of these items. Acute needs for seed may appear in some of the now-occupied territory, especially if it is laid waste by warfare. However, seed requirements can be met for the most part from adjoining areas of China itself. Import of seed from abroad is inadvisable when not absolutely necessary, because acclimatization presents a problem. Chinese experts do not recommend the import of any rice or wheat seeds, but they are requesting UNRRA for almost 8 tons of seeds of various vegetables.

China has suggested to UNRRA that she could use over half a million tons of imported *chemical fertilizers* during the first year and a half. In addition, it is suggested that UNRRA help China to rebuild the existing fertilizer plants.

One of the most vexing, and perhaps the most urgent of agricultural tasks, will be the restoration of an adequate number of draft animals to the devastated areas in Occupied China, where the number of livestock has been greatly reduced. Cultivation in China cannot be carried on without draft animals, and experts fear that shortage of draft animals may limit production for three or four years after the end of the war. Observers report that in some places in Occupied China, the livestock has disappeared completely. Retreating Chinese soldiers and fleeing civilians took some, and the Japanese took the rest. For Occupied China as a whole, livestock numbers may have declined to one-third of the pre-war figure by now, and may be still smaller at the end of the war. The dearth of livestock can be made up only through natural increase over a period of years. Large scale importation from abroad will not be a practical solution due to the expense and to problems of acclimatization. But the Chinese authorities are suggesting the importation of over 130,000 head of livestock, mostly sheep and Indian water buffalo.23

Large quantities of veterinary supplies, fungicides, and insecticides will also be needed.

Whether or not a large proportion of farm tools has been destroyed, shortages will certainly exist in some areas, especially where farmhouses have been ravaged by fire. In such places many of the tools, most of which were wooden, will have disappeared. They can be replaced by local manufacture, the supply of wood being the most important consideration. Some reports assert that the Japanese have carried off such metal implements as existed, as well as farm carts. If this has happened generally, metal tools, or metal parts of tools, may have to be imported.

In the flat stretches of northern China, the introduction of a few tractors may be desirable, partly for the purpose of demonstrating to farmers the use of modern agricultural methods. Shortage of shipping space, dearth of fuel, and the demands of other parts of the world will limit the number of tractors that can be sent.

Although not strictly an agricultural problem, the decline of the fishing industry calls for some mention at this point. Fish are an important source of protein for the Chinese living along the coast,

²² Artificial insemination of existing female animals is one device that will save time and shipping space, and at the same time provide an opportunity to improve the strains of Chinese livestock. Artificial insemination cannot be carried out on a significant scale without the aid of more specially trained technicians than there are at present available.

and Japanese seizure of even the smallest boats has restricted the fishing industry severely. As in the case of trading junks, fishing craft can be built with local labor and largely with local materials, if small amounts of hardware and perhaps some lumber are made available by the rehabilitation authorities.

A possible shortage of farm labor in some areas at the end of the war can be relieved to some extent by the use of demobilized soldiers who could be organized for emergency food production.

2. FIELDS FOR TECHNICAL IMPROVEMENT—The period of emergency rehabilitation will offer an excellent opportunity to introduce some technical improvements in Chinese agriculture. Although the benefits from the introduction of technical improvements may not be immediately apparent, this sort of rehabilitation is justified in the emergency period, for it will result in increased production within the first year or eighteen months.

The restoration of production to pre-war levels, or even beyond pre-war levels, could be enormously accelerated not only by greater use of fertilizer, but also by various innovations of a simple nature to increase the yield per acre. Such improvements, although instituted as emergency measures, could be of great benefit to China in raising her standard of living.

The United Nations, particularly the United States, can play an important part in a program of technical improvement, chiefly by providing scientific personnel for experimental work. Knowledge does little good if limited to the experts at experiment stations. There is a crying need for extension workers, and this should be met as far as possible by training Chinese.

Among the needed technical improvements in China are the development of better strains of seeds and livestock, and the increased use of chemical fertilizers; the control of plant pests and animal diseases, and the improvement of methods of culture.²⁴

²⁴ Improvement in methods of culture entails among other things the introduction of new farming implements, not of combines, milking-machines and tractors, but of improved winnowing machines, and of scythes instead of sickles. Simple drawings and specifications for the local production of hand tools should be distributed by the thousands. Chinese farmers in some instances could also be taught better planting practices. Education will be required before Chinese farmers will shift to production of some new crops at the expense of what they have traditionally raised.

Efficient farming is hampered in China by a high rate of morbidity. Dysentery and malaria, to mention but two diseases, debilitate millions of Chinese

3. RECLAMATION OF FLOODED AREAS-River control looms large whenever China's problems are discussed. For if the vast waters of the Yangtze and the Yellow Rivers were harnessed, countless lives would be saved each year from drowning and famine; and thousands of new acres could be brought into production through irrigation. There is no more stupendous engineering task in the world than the harnessing of China's great rivers. Although these long-term schemes can scarcely be undertaken as emergency measures, the reclamation of the 13,000 square miles of land flooded by the break in the Yellow River dikes should be an emergency project. Chinese authorities estimate that this holocaust has been responsible for an annual loss of 700,000 tons of food. It was a principal cause of the great Honan famine. If the breach is repaired before March of any year, it should be possible to raise 500,-000 tons of food on the reclaimed land that same year. The emergency program includes not only the closing of the crevasse, but also dike repair along the Yellow and Huai Rivers, and the dredging of silted-up streams in the flooded areas. Chinese officials believe that unless repair work is also done on over 5,000 miles of dikes, in addition to the Yellow-Huai River project, within the first year after the war, large floods are likely.

These emergency reclamation and flood control projects will probably require the import of only 12,000 tons of supplies and

the assistance of a score of foreign experts.

4. SOCIAL READJUSTMENTS—As soon as any agency, Chinese or international, begins seeking means to increase China's productivity during the emergency period, it will immediately discover that any real improvement is thwarted by the rural social structure of China.

Any changes in the rural social structure are China's business (Continued from page 21)

farmers every year. An expanded rural health service is therefore a vital link

in the agricultural chain.

Although the war has interfered with the improvement of farming methods in China, some progress has been made during the past seven years. The various departments of the Ministry of Agriculture and Forestry have made strenuous efforts to increase acreage and output per acre through the improvement of seeds, promotion of the use of fertilizers, control of pests, and by furthering irrigation projects. Indeed, if it had not been for these efforts, farm production in Free China would have slumped disastrously since 1937, instead of having increased. Nevertheless, what has been done is a mere drop in the bucket. As an example of recent technical improvements, more than 50,000 acres in Szechwan are planted with a new strain of wheat, known as No. 2905, developed by the College of Agriculture of the University of Nanking (now in Chengtu).

alone; it is certainly not UNRRA's task to revolutionize the social system of any country where it operates. But reform cannot wait until after the emergency. The lack of reform has itself deepened the emergency; and unless the Chinese Government takes steps of a more far-reaching nature than it has in the past, UNRRA's functions in trying to augment farm production will be hampered.

While the field of technical improvement is probably the best place to start working for increased agricultural output, it will be found necessary to carry on a simultaneous program of social reform, if only for the sake of overcoming the fatalism of the Chinese farmer who, because of the inequities of the agricultural system, feels that he is doomed to a life of poverty, and that any improvements will benefit the landlord, rather than himself. The basic difficulties in China are a high rate of tenancy, land rents and inequitable land taxes, the diminutive size of land holdings, and excessive costs of transportation and marketing. That the Central Government is aware of these problems is shown by the following quotation from the Central Daily News, a government newspaper:

The farmers should be given the land they till, as they were promised by Dr. Sun Yat-Sen in the Three Principles of the People. Only in this way can they be enabled to increase their purchasing power and to consume more manufactured goods. At present the landlords are living lives of leisure in towns and cities on the basis of the strenuous labor and the hardships of the peasantry. It is also necessary to protect the position of the owner farmers against bankruptcy and against any further partition of their land. Furthermore, the land tax should be fixed in such a way that it acts as a check on the landlord. In the meantime, it is necessary to survey and demarcate all land holdings in a correct manner in order to create a proper basis for the just assessment of the land tax.

The tenants and part owners in China—over half of all farmers—are burdened by crushing land rents, which often take from 45 to 60 percent of the produce. In addition, the tenant often bears the brunt of the land tax, though it is supposed to be paid by the land-owner. The tax is frequently evaded by rich landlords and the gentry, and falls with added weight upon those least able to pay.

The Chinese farmer has marketing difficulties as well. Transportation costs and middlemen's profits are so high that an enormous discrepancy exists between what the farmer gets, and what his product ultimately sells for.

Even without these difficulties, livelihood would be a struggle for most Chinese farmers because the average size of farms is so small-smaller than in any other country except perhaps Japan.²⁵ In many cases, farm holdings are broken up into a number of tiny parcels, at some distance from each other, and of inconvenient shapes.²⁶

These various adverse circumstances have reduced the majority of Chinese peasants to such poverty that they cannot afford to farm efficiently. The farmer cannot buy tools, fertilizers, and pesticides, nor the improved strains of seeds or livestock. His poverty has kept him in ignorance of scientific farming methods.²⁷

III. HEALTH

Modern medicine was gradually coming to be accepted in parts of China, especially in the big cities, at the outbreak of the war. But the country's few hospitals and doctors had scarcely scratched the surface of the health problem when war broke loose. The vast majority of people are much too poor to afford any kind of medicine or medical treatment. A moderately adequate public health

The mean size of Chinese farms is 3.76 acres, compared with 63.18 in England and Wales, and 156.85 in the United States, according to J. Lossing Buck. (Land Utilization in China, University of Chicago Press, 1937, vol. 1, page 268.)

²⁰ H. D. Fong, in *The Post-War Industrialization of China* (page 9), states that there are, on the average, 5.6 parcels of land per farm in China.

Yat-Sen's dream of agricultural progress through the use of scientific methods, as he himself pointed out. "Since the production of food in China depends upon the peasants", he declared, "since the peasants have to toil so bitterly, we must have the government make regulations by law for the protection of the peasants if we want to increase the production of food." (Lecture Three on Min-Sheng Chu I, 1924, China Handbook, page 82.)

Some slight progress in agrarian reform has been made of late in Free China under the aegis of the Central Government; but, as the *China Handbook* says (page 606), "During the war, there have been no drastic land changes."

There has been vigorous agricultural readjustment in various Communist-controlled territories, furnishing some interesting examples of what can be done. Correspondents visiting the "Border Region" in the summer of 1944 found that agricultural production there has been increasing by leaps and bounds. They say that the secret of this success seems to be that through an extension of popular government and the reduction in the power of landlords, the farmers feel that they have a stake in high production, and are eager to cooperate with each other and with the government in efforts to improve their lot.

In parts of Shansi province, landowners are allowed only 5 percent of the harvest produced by renters, against a former 40 to 50 percent, it is reported. As a result, many landowners have begun to operate their own farms. Since 1937, there has been no confiscation of land, and no collectivization. Cooperative cultivation of land has proved popular.

Meanwhile, farmers have been adopting improved methods of cultivation, and there has been extensive reclamation of waste land.

service would cost more than the total pre-war revenue of the national government.

Although health measures and all medical facilities are still totally inadequate, it is no exaggeration to say that Chinese medicine under governmental direction has progressed almost a century during the present war.

It is estimated that there were only about 12,000 bona fide doctors in China in the fall of 1942, perhaps equally divided between Free and Occupied China. This provided one doctor per 37,500 Chinese, compared to one doctor per 1,000 Americans. In addition, there were over 100,000 herb doctors and other "old style" medical practitioners in whom many Chinese still put their faith. Nurses numbered only about 6,000 in all China, and dentists a mere 300. China has pitifully few sanitary engineers, trained midwives, laboratory technicians, pharmacists, and other ancillary medical personnel.

Not much is known of health conditions in Occupied China at present, but they are undoubtedly worse than before the war. In Free China, in addition to military casualties, the war has contributed to a high incidence of epidemics and diseases of malnutrition. Drug imports have been largely cut off, and the import of medical personnel from abroad greatly restricted.²⁸ Alleviation of the warcreated health crisis in China is the partial responsibility of the United Nations.

China, even with UNRRA's help, cannot hope to achieve an "adequate" health program during the emergency period. The task in the first year or two after the war will be to combat the epidemics which have become widespread since the war, to minister to uprooted people and other victims of hostilities, and to lay the foundations from which China can progress under her own power to the realization of the adequate program in years to come.

An official agency, the National Health Administration, already administers China's program of state medicine, which provides a large proportion of the medical care available in Free China today.²⁹ Expansion of the NHA's present activities will be the simplest and most acceptable means of meeting China's needs in the emergency period.

²⁸ The Chinese Army, as well as civilians, is suffering severely. It is reported that of a levy of conscripts entering the Ninth War Area recently, a violent outbreak of dysentery carried off 78 percent. Undernourishment and lack of drugs were responsible for this great mortality.

^{**} An important exception is hospital facilities, most of which are administered by foreign mission bodies.

Food is the basic medical requirement for China. Many of the most prevalent maladies in China today, such as tuberculosis, leg ulcers, malaria, scurvy, and typhus, are either caused or aggravated by dietary deficiencies. Adequate food supplies are requisite to combat these diseases. Dried eggs and soya beans will be especially useful. Milk powder for infant feeding must be imported. In addition, certain amounts of vitamin preparations will be needed. Adequate provision of clothing, soap, and shelter is likewise necessary to halt the spread of filth-borne diseases and sickness caused by overcrowding. Until better transport is provided, these and other urgently needed medical supplies cannot move.

With regard to requirements of a strictly medical nature, the Chinese Government estimates a need for the importation of 74,000 tons of medical supplies and equipment, and for the services of several hundred foreign technicians, in addition to fellowships for a somewhat smaller number of Chinese to study abroad.

Medical personnel is the major need. In its report to UNRRA in September, 1944, China listed the following immediate requirements:

Medical doctors	6,028
Dentists	263
Nurses	9,927
Midwives	4,400
Sanitary engineers	80
Assistant sanitary engineers	753
Sanitary inspectors	160
Pharmacists	323
Laboratory technicians	1,292
X-ray technicians	100
Dispensers	1,789
Attendants (nurses' 2ides)	9,514
TOTAL	34,729

Since the great majority of this large number must be Chinese, China's present inadequate training facilities should be increased. Most of the medical schools in Occupied China have been closed by the Japanese. In Free China there are six major medical schools (four of them subsidized by the Government, and two run by missions), and several provincial schools. The number of doctors graduating each year from these various institutions is only around 400. There are fewer than 300 new nurses a year.

In addition to Chinese technicians, foreign medical personnel, particularly doctors, will be needed during the emergency period, both to tend to the sick and to train Chinese doctors. The Chinese

Government has asked UNRRA to secure the services of the several hundred foreign experts who will be needed. Foreign personnel would probably work under the direction of the NHA.

Medical schools in Free China are hampered not only by a lack of funds and staff, but also by a dearth of equipment, such as surgical instruments, X-ray machines, hospital equipment of all sorts, medicine droppers, thermometers, bed pans, window screen, mattresses, etc. Dr. H. P. Chu, Dean of the National Medical College of Shanghai (located near Chungking since 1941) reported:

Five classes in chemistry are using one balance. Thirty microscopes are rotating among over 100 students. There is only one burette in the college. The Department of Bacteriology does not possess an incubator. In short, lack of equipment is our main difficulty.

Another urgent medical need will be the increase and improvement of hospital facilities. Pre-war China had less than 400 hospitals (most of them mission institutions), and about 38,000 hospital beds, or one bed per 12,000 people. In the United States the ratio is about one bed per 100 people.

Not much can be done to increase hospital accommodations drastically in the first months after fighting stops; but the out-patient departments of Chinese hospitals, and the health centers which take the place of hospital out-patient departments, can certainly be improved and augmented, if personnel, equipment, and funds are made available. According to Chinese experts, China should begin at once a program designed to provide one hospital bed per 5,000 population. This would require over 50,000 additional hospital beds. Approximately one-third of these new facilities are planned for large cities, and the rest for small cities and rural Health Centers. Such a program would take several years to accomplish. UNRRA's help in the initial stages is desired.

China is at present confronted by a grave shortage of drugs. Of

³⁰ Hospital facilities in Occupied China have deteriorated as a result of Japanese occupation, and many of the hospitals have doubtless closed. Nevertheless, there are probably more hospital beds still in Occupied China than in Free China. In Free China, hospital facilities have improved under the aegis of the NHA.

In the provinces of Shansi, Shensi, and Chahar, the Communists have their own medical service. Four International Peace Hospitals are operating in this region, one of them housed entirely in caves. A great shortage of doctors, drugs, food, and equipment exists in these hospitals.

The Chinese Army has its own special hospitals, administered by the Army Medical Administration.

the 104 drugs considered absolutely essential by Chinese authorities, only a handful are now being produced in China. Less than half of the 104 can be produced in China in the foreseeable future, either because of lack of equipment, or more often because the raw materials are not to be found in China. The Chinese Government recommends the rehabilitation of five pharmaceutical plants for the manufacture of those preparations whose active ingredients are in small proportion to their bulk.

Among China's most pressing needs are quinine-particularly important, atabrine, sodium sulphate, yeast, morphine, ether, various sulpha drugs, neostam, zinc ointment, and vaccines. Domestic production of certain of the drugs in short supply can be augmented or even started from nothing. China should be able to produce sufficient quantities of biological products (vaccines and serums); but for anti-epidemic work alone, hundreds of tons of chemicals and drugs will have to be brought in. Some of the necessary supplies are already waiting in India, but cannot enter China because of transport difficulties. A few chemists experienced in the manufacure of drugs and of their basic ingredients could help China to increase her own production.

China's medical requirements, compared to her needs for food, clothing, and transport equipment, are small in bulk but are second to none in importance. It is likely, therefore, that they will be the first relief goods to enter China. World supplies of these items in general will be found adequate to meet the most urgent needs. Remnants of the enormous military stocks of equipment and drugs

could be spared for China as soon as the fighting stops.

IV. CLOTHING

Millions of Chinese have suffered intensely from cold during the last several years. Clothing is needed more desperately in China than in any other consumers' commodity except medical supplies and, in some localities, food. It is estimated that yearly per capita consumption of cotton in Occupied China fell from about 4 pounds in 1937 to 2.52 pounds by the winter of 1941-42. Probably the figure is much lower by now. (In the United States, per capita consumption is in the neighborhood of 11 pounds.) In Free China the clothing shortage is even more acute. No fabric except cotton is available for most Chinese. Replacements for worn-out clothing are very difficult to obtain, not only because of actual scarcity, but also on account of the vastly inflated price.

While China imported merely a fraction of the raw cotton, yarn, and textiles she used, there will be an almost limitless need for imports of cloth until her own texile production can be restored and improved.

The Present Crisis

The war has caused the present shortage, first of all by the severence of China into two parts. Before the war, what is now Free China produced a surplus of raw cotton, but had almost no spinning equipment. What is now Occupied China, on the other hand, had 98 percent of the country's spindles, but had to import its raw cotton from the other part of China, and from overseas. The present division of China has therefore prevented both parts from producing enough cloth. With the reuniting of China, and the restoration of transportation, this paradox will partly disappear.

Secondly, there was considerable devastation of spinning mills in Occupied China where 98 percent of the country's spindles were. Close to one-quarter of the spinning equipment was destroyed by military operations; and although some of this has been replaced by the Japanese, yarn production in Occupied China is probably not more than half of the pre-war figure. Stoppage of raw fiber imports from other parts of China and from overseas, and a serious fuel shortage, have contributed to this decline. Conditions grow worse by the month.

The Need for Emergency Imports

Even assuming that steps are taken to rehabilitate the Chinese textile industry, large emergency relief shipments will be needed. The principal requirements will be for plain coarse cotton cloth

(sheeting, shirting, drills, and jeans), and for raw cotton.

The clothing requirements, although large, are extremely simple. Finished garments will not have to be provided, merely cotton cloth, raw cotton, and in some instances, simple sewing equipment. Summer and winter clothing, shoes, and bedding are all made from raw cotton or cotton cloth. Even buttons are not needed. Chinese use a cloth button and loop. However, most Chinese have come to rely upon machine-knitted cotton socks in the past; and the provision of these during the relief period would accordingly be highly desirable, although not indispensable.

Chinese authorities estimate that by the end of the war, everyone

in China will need two new outfits, one for summer, and a padded outfit for winter. In addition, almost 7 million padded quilts are required for those whose suffering is especially acute. China has asked UNRRA for 10 percent of the raw cotton and cloth requirements. According to Chinese figures, the provision of these quantities (taking domestic production into consideration), will consume 5.5 million bales of raw cotton. Of this, 1.2 million bales will be for stuffing the winter suits and the blankets, and tor supplying Chinese textile mills with raw material.³¹ The remaining 4.3 million bales are what is required for the manufacture of the imported cloth and blankets.

The provision of China's total requirements will put no strain on the world's supply of raw cotton. The world carry-over in the fall of 1944 approximated 26 million bales. European relief requirements may take 1 million bales.

On the other hand, China will have difficulty in obtaining from overseas the 5.5 billion yards of cotton textiles. It is probable that such imports will be spread over a period of three years, considering that the rest of the world could scarcely be expected to furnish such an enormous amount in a shorter period. A reasonable assumption is that 2.5 billion yards will be provided the first year, 2.5 billion yards the second year, and the remaining one-half billion yards the third year. After that, China should be fairly self-sufficient in cotton cloth.

China's emergency requirements for cotton cloth will have to come mostly from Japan, India, Great Britain, and the United States. Japan normally exported in peace-time well over 2 billion yards of cotton cloth a year, or almost as much as China's probable emergency requirements. Even if Japan's textile capacity is drastically decreased by the war, it is probable that she can furnish a large proportion of China's emergency imports. India, the next nearest source, will be able to supply only a very small fraction, or perhaps none, of the Chinese requirement. (In 1938, India's export of cotton piece-goods was just under 200 million yards.) Great Britain and the United States can furnish whatever Japan and India cannot. The United States theoretically could meet the entire need alone if that were necessary or advisable. Our present production is over

⁵¹ The amount of cloth and raw cotton needed will depend upon the season when relief can begin. Slightly less will be needed if the initial period is in summer. The figures in the text are an average.

10 billion yards a year, two-thirds of the world's output.³² Great Britain in peace-time had a yearly export trade in cotton fabrics

of about 2 billion yards.

The administration of a clothing relief program does not present any important problems other than those mentioned in connection with food relief on pages 17-19. The principal task is to reduce the need for handouts as much as possible by requiring some sort of payment for clothing. Price control is especially important in the case of clothing supplies. Cloth should be distributed whenever possible through ordinary commercial channels, and where free distribution is necessary, as much reliance as possible must be given to local authorities, although safeguards against favoritism must be maintained.

Restoration of the Chinese Textile Industry

The Chinese estimates of import needs for raw cotton and cotton cloth were made on the assumption that China would simultaneously receive spinning machinery and would be able to restore or even increase raw cotton production in both parts of China.

To furnish ample supplies of raw cotton, Chinese experts estimate that 6,000 tons of cotton seed, enough to plant about a million acres in north China, ought to be imported from the United States

during the emergency period.

To restore full production of varn in

To restore full production of yarn in the coastal cities and the Yangtze Valley, spinning machinery will have to be imported, power plants restored, and fuel provided. These mills will require part

of the emergency imports of raw cotton.

Although in the early months of the emergency period, textile imports will be necessary for eastern China, restoration to pre-war capacity of spinning mills in Shanghai and in other coastal cities will satisfy minimum needs in the east. But in Free China, the cotton industry will have to be expanded, because the needs of this area cannot be met quickly enough from eastern production, even when restored.

The most serious shortage in Free China is in spinning equipment. Although the spindles brought from Occupied China outnumber the pre-war spindles in Free China 8 to 1, there are still fewer than 350,000 spindles in Free China, or less than 6 percent of the total number in all China. Even these few spindles are not all in operation. The difficulty of moving supplies of raw cotton

²² If this country were to undertake the task alone, it would keep almost 150,000 looms and over 7 million spindles busy for over two years, and furnish about 370 million man-hours of employment.

to the mills, and the dearth of spare parts for spinning machinery enforce the idleness of some spindles.

Textile production in Free China can best be increased by encouraging small-scale enterprise. With more adequate prodution of iron and steel, Free China could build its own simple spinning equipment. The Chinese Industrial Cooperatives, which are now manufacturing a few such spinning sets, have demonstrated how much can be done with simple equipment. It may also be possible to import some simple spinning sets similar to those the CIC now use.

Chinese experts estimate a need for the importation of 1 million spindles (weighing some 50,000 tons), and almost 7,000 tons of spare parts of textile machinery during the emergency period. Even so, it is thought that textile production will not be restored to its pre-war level until the third year after the war. Almost all the imported spindles and spare parts will be used in what is now Occupied China. UNRRA is asked to provide 40 percent of the spindles and all the spare parts.

Home spinning is very important in Free China and will continue to be following the war. About 60 percent of the raw cotton produced there is retained for home spinning and weaving on hand looms, or for use as padding. In Occupied China, home spinning is uncommon although most of the weaving is done at home. Home weaving and spinning will make the task of reclothing China much easier, but the factory process is so much quicker that every effort must be made toward mechanization.

Woolen clothing, though of minor importance, will prove a valuable supplement if knitting wool is available.

V. FUEL FOR DOMESTIC USE

Imported fuel will be necessary to China chiefly for the sake of her industries. Imported fuel plays a relatively small role in Chinese families, except in Shanghai and other large cities in eastern China,38 which rely upon coal brought from a distance, or from overseas. The war-created shortage must be relieved by emergency imports until normal movement of coal into and within China has

^{**} Farm families use plant stalks for fuel, or coal from mines in the immediate vicinity. In provincial towns, local coal and charcoal are used, in addition to underbrush, wood, and other products of the neighborhood.

been restored. Fuel is, of course, needed for warmth, but even more urgently for cooking.³⁴

Fortunately, the amount of foreign coal required to meet these domestic needs is not great. The Chinese have not submitted any requirements whatsoever to UNRRA for coal.

No fuel other than coal will have to be imported during the emergency period, though kerosene for lighting would be highly useful. Before the war, kerosene had gradually been replacing vegetable oil as the main source of light for country homes. Now that imports have been stopped, no more kerosene is available; and Chinese homes are again lighted by vegetable oil. Since vegetable oil is also a food, imports of kerosene would increase to a minor extent the food supplies. However, kerosene cannot be regarded as one of the most urgent relief needs of China.

VI. SHELTER

China's post-war housing problems will largely take care of themselves, for families will usually find enough building material in the immediate vicinity to repair or rebuild their homes. It would be impossible to import large quantities of anything so bulky as building materials during the emergency period.

Rural housing, accommodating 80 percent of the population, will make no demands upon imported supplies. Farm buildings are fashioned of tamped earth, sun-dried brick, bamboo, mud, or other local products, with thatched or tiled roofs. Almost all houses have earthen floors, and glass is most uncommon. Wires, nails, and perhaps a few tools are the only manufactured items needed. Buildings in provincial cities are also made of indigenous materials, with considerable use of brick; but wooden floors and glass windows are common. In the large port cities the ordinary house is made of brick.

Bricks, tiles, mud, bamboo, and wood are generally available in China. There should be no shortage of glass since a number of small glass factories are scattered throughout the country. Since Chinese production of nails, tools, and other hardware was very small before war, it is likely that imports will be needed.

Nevertheless, although the proportion of Chinese needing hous-

³⁴ Imported coal will be needed not only for private families, but also for cooking in refugee camps and other centers of mass feeding.

ing relief may be small, the volume of aid for repair and the provision of temporary shelter for refugees will be large. Temporary shelters will be essential at points where migrating people will tend to cluster en route (such as highway intersections and along waterways), and also in unusually devastated cities or districts which are the destination of returning people.35 The refugee housing problem can be kept at a minimum if the movements of displaced people are directed or controlled in such a way that large concentrations do not appear in areas where housing is scarce and construction difficult. On account of the enormous number of uprooted Chinese, the human tide will be difficult to control. Indeed, it will be both impossible and undesirable to prevent the homeward trek of China's displaced millions after the war is over; but authorities, by public notification and by helping to provide livelihood for them elsewhere, should be able to postpone the return of hordes of people to ruined cities like Nanking.

Even if all possible administrative measures are taken to prevent housing shortages, a minimum estimate is that enough temporary shelters at camps must be built to accommodate over one-quarter of a million people. Shelters will be for the most part quickly-built structures using local materials. The majority may be mat sheds, the traditional type of emergency shelter in China, made by covering a skeleton of poles with straw mats. Labor for construction will be readily available; in fact, such an opportunity for employment will doubtless be a great blessing to refugees and others who may be without normal means of livelihood. Presumably the construction of these shelters and the assignment of them to refugees would be a government-operated project.

A type of relief as important as the provision of emergency shelters will be aid in the repair of damaged houses. Here again, most of the materials will be available in China itself, although considerable quantities of nails, hardware, and hand tools will have to be imported, and perhaps some wood as well.

Restoration of existing sawmills and the establishment of some new ones may be necessary to provide timber, not only for emergency shelters and the rebuilding of dwellings, but also for industrial rehabilitation and a supply of railway ties.

²⁸ "According to estimates drawn up by the Ministry of Social Affairs, no less than 46.889,461 persons, or 9,377,890 families have been rendered homeless by the war. It is expected that at least half that number will need to be assisted in respect of housing." (International Labour Review, June 1944, page 658.)

VII. OTHER CONSUMERS' GOODS

Many Chinese families, especially in the occupied sections, will have been deprived of indispensable utensils or household equipment. Japanese requisitioning of metal, destruction of houses, mass evacuation, and the impossibility of replacement, have doubtless reduced the stocks of pots and pans, stoves, earthenware, and other simple objects even below the level to which the Chinese are accustomed. Before the war, these articles were generally produced in small shops throughout China, and can be again. Some of these small shops will have to be supplied with simple tools in order to resume operation. Provision of sheet tin and sheet iron for manufacture into household utensils in Chinese shops will preclude the necessity of importing finished products.

Another consumers' goods industry that may have to be restored is flour milling. China has always milled almost all her own flour.

China is already suffering a severe shortage of soap. Before the war she imported 11,000 tons of household soap per annum, and considerable amounts of toilet soap, although Chinese production was much larger than the imports. But since the outbreak of the war, manufacture in China has fallen drastically because imports of caustic soda are no longer possible. China should have no trouble in meeting her own emergency needs for soap when sufficient alkali can be imported. Soap is made in hundreds of small factories and homes throughout China.

VIII. GENERAL INDUSTRIAL REHABILITATION

Just as the best way to feed and clothe China will be to increase her own production, so the best way to provide her people with the other manufactured essentials will be to restore and improve Chinese industry, or at least those industries producing consumers' goods. However, in practice it will be impossible to increase the output of consumers' goods unless the output of producers' goods industries is also increased.

In the following pages, aid to industries is discussed only insofar as it is an essential step in providing the necessities of life. Since manufacturing is more complicated than food production, a headstart is important in industrial rehabilitation if it is to be of any use in the period of China's greatest need. Certain types of industrial aid can and should be given to Free China now.

The Industrial Economy of China

As in the case of transportation, the first fact to be reckoned with in considering industrial rehabilitation is that there is little modern industry in China. "Taking the amount of machinery per inhabitant in the industrial countries of northwestern Europe as 100," says Dr. Fong in *The Post-War Industrialization of China* (page 1), "the corresponding index would be 405 for the United States, and only between 0 an 1 for China."

Large-scale industry in China was concentrated in the great cities along the seaboard before the war, particularly in Shanghai, where three-quarters of China's industry was located. Much of Chinese industry was controlled by foreign capital.

Consumers' goods were produced not only in large factories, but also in small shops and households throughout China. The small unit is the more typical form of Chinese industrial organization. Both large-scale and small-scale industry have been, are, and will be necessary to China.³⁶

Imports of manufactured goods into China were relatively small, considering the size of the country. The most important consumers' manufactured items imported were cotton and wool textiles. However, China imported considerable lubricating oil and transportation equipment, and was heavily dependent on imports for her meager supply of iron, steel, and machinery. Shanghai's industries relied largely upon imported coal.

The outbreak of the war in 1937, and the subsequent conquest by Japan of all main centers of industry, have occasioned a basic shift in China's industrial economy. The effect of Japanese occupation in China has been no less drastic on that country's industry than would be the effect on the United States' if an enemy power were to seize control of all that part of our country lying north of the Ohio and east of the Mississippi (with St. Louis thrown in for good measure), and were to blockade the remaining area, except for one air route from Montana across the Canadian Rockies. Over nine-tenths of Chinese industry has been in what is now Occupied

^{**} The cotton textile industry, the most important consumers' goods industry in China, is a case in point. Cotton spinning is done very largely in the factories of Shanghai, Tientsin, Tsingtao, and Canton, while much of the weaving is done in suburban or rural weaving sheds, or in peasants' homes.

China. Although a small part of it was moved westward in time,

industry in Free China is pitifully inadequate.37

The degree of damage to industry in Occupied China varies greatly from place to place. Generally speaking, plant equipment is out of repair, parts have been looted, spare parts and lubrication are scarce or completely unavilable. Use by inexperienced hands has caused quick deterioration. Heavy fighting during reoccupation will wreak additional havoc.

Japanese control has blighted those enterprises which have remained physically intact. Integral features of the "co-prosperity" scheme are that an agricultural China be kept at the mercy of an industrial Japan, and that peace-time industries be sacrificed to war industries. Factories making civilian goods have been shut down to conserve the limited supply of power. Apparently industrial activity in Shanghai, the greatest center of all, has come to a standstill.

The Post-War Task

Industrialization of China is not a task to be accomplished during the emergency period, but restoration or creation of those industries essential to the the relief of war-caused suffering should be furthered by UNRRA and by other foreign or international bodies.

Aid to transportation is one case in point. Proper functioning of industry is, of course, impossible unless goods can flow freely.

Secondly, provision of technically trained personnel is another contribution that the United Nations can make to China, as has been pointed out in several connections in this report.³⁸

²⁷ The Ministry of Economic Affairs has recently devoted its energies to industrialization in the heart of Free China, particularly in Szechwan. The number of new factories in Free China engaged in heavy industry increased markedly between 1936 and 1942. Similar expansion of consumers' goods industries has taken place.

trained personnel. In addition, many of her own engineers, chemists, etc., received their training in America. During the emergency period, China will need even more foreign-trained scientists. During 1944, the number of young Chinese studying in America was growing. Eventually, of course, China should become much less dependent upon foreign-trained personnel.

China also lacks an industrial labor force. Her people are mostly peasants, and working conditions in factories along the coast have not been such as to attract anyone who could avoid going into industry. Dr. Fong describes the

situation as follows:

Industrial labor in China as a whole did not amount to two millions (Continued on page 38)

Thirdly, China needs long-term loans from abroad for the purchase of industrial machinery and equipment. The accumulation of capital in China has been very slight indeed.

Fourthly, the industries turning out vital consumers' goods must themselves be helped. Chief among these are textile factories, hardware industries, shops making various household utensils, soap factories, flour mills, and saw mills. These industrial needs were dis-

cussed in the foregoing pages of this report.

In order to achieve the rehabilitation of consumers' goods industries, sufficient iron and steel must be available. China's domestic need for steel is in the neighborhood of 600,000 tons a year during peace-time, according to Dr. Fong. Free China's output of iron in 1942 was around 30,000 tons, a three-fold increase over 1941 production, but still woefully inadequate. Steel production rose from approximately 6,000 tons in 1941 to 10,000 the next year. During the emergency period, most of the deficit will have to be made up by imports, since the expansion of China's iron and steel industry is too complicated a task to be immediately effective.39

(Continued from page 37)

even before the present war; what with the destruction of the war and the dispersion and loss of such labor in the course of the war, a postwar China must feel more keenly than before the shortage of industrial labor supply. China after the war will have to launch a large-scale program of educational reform with a view to preparing the vast illiterate and agricultural population for industrial development, to be carried out simultaneously with a system of vocational education for the training of mechanics and skilled workers, just as other newly industrialized nations, Japan for example, did many decades ago. (H. D. Fong, The Post-War Industrialization of China, page 14.)

A significant contribution in training skilled mechanics and factory workers has been made by the Chinese Industrial Cooperatives. At present, the CIC operate 9 schools, known as Bailie Schools after the American missionary who envisaged them. Each of these schools has about 40 students learning motor mechanics, mining, tool-manufacturing, weaving, well-digging, accounting, geography, current events, singing, sports, and other arts.

39 However, as a wartime and post-war emergency measure, iron production in China can be increased by the establishment of a dozen or fewer small smelting plants in different parts of China. Iron ore and coal are available in almost every district of western China. While it would be better to establish a number of modern plants, this will be impossible for many years to come. The building of modern blast furnaces would require the import of a great weight of equipment from overseas. Their operation would necessitate a corps of highly trained experts, would require vast quantities of ore and coal, and hence a welldeveloped carrier system. Small units, on the other hand, would require much less important equipment. They could be built on the spot, and easily repaired. Each unit would be built with reference to the ore and coal supplies in its particular region, and would not depend on long hauls. It would not demand highly skilled operators with elaborate training, nor a large capital investment. And it could be built quickly. The same principles also apply to steel production.

Industrial production in the cities of Occupied China has been seriously handicapped by the dearth of coal. China as a whole is more than self-sufficient in coal, which is found in all the provinces. It will probably prove more efficient to import coal for the coastal cities than to try moving it by rail from the provinces with surpluses. Considerable imports may be necessary initially to revive the industries in the big cities.

It will also be important to insure high production in Chinese mines. In Occupied China, a real problem of mine rehabilitation may exist, for it is not unlikely that retreating Japanese will flood or otherwise devastate the mines. Measures of rehabilitation may include sending mining engineers and mining machinery. In Free China, coal output has increased steadily in recent years, and is by no means one of the major bottlenecks of industrial production. Nevertheless, local shortages of coal in various parts of Free China do develop from time to time.

Once the iron and steel bottleneck is broken, and a coal supply is assured, other key industries can expand—the machine shop industry, for example. Almost all the machine shops in pre-war China were concentrated in Shanghai and Tientsin. Since 1937, a number of shops have been established in Free China; but meanwhile, many of the old ones will have been destroyed. Several thousand tons of miscellaneous equipment are requested by the Chinese government to rehabilitate the industry to the point where it will no longer be a bottleneck.

The Chinese have drawn up plans for a partial restoration of electric power during the emergency period. A supply of electric power is a necessary prelude to other phases of rehabilitation.

Because of the widespread destruction of factories, the Chinese construction industry will have to be restored to at least its prewar size, and perhaps even expanded beyond that. Although a full-scale rebuilding program will scarcely be feasible during the first year after reoccupation, key industrial plants in the cities will have to be rebuilt or constructed. China can become largely self-sufficient in the building materials necessary for such a program. To import much of them would be impracticable because of their bulk.⁴⁰

[&]quot;For the rebuilding of industrial plants, the principal problems will be cement, iron reinforcing bars, hardware, and plumbing. China was virtually self-sufficient in cement before the war. Most of the production was in what is now Occupied China. Undoubtedly the cement producing capacity will be greatly

The Implications of Industrial Rehabilitation

Thorough rehabilitation, taking the development of basic industries as well as consumers' goods industries within its purview, will be bound to have implications for the long-term post-war industrialization of China. Although the industrialization of China is not the purpose of UNRRA or of similar agencies, care must be taken that the efforts at "rehabilitation" are at least consonant with long-range plans—not at cross-purposes with them.

First of all, long-term considerations demand that careful thought be given to the degree to which small-scale enterprise be expanded during the emergency period, vis a vis mass production in great factories. If China is to become really industrialized, important commodities like steel and textiles will have to be produced by modern methods. Are we justified, therefore, in suggesting as we did that during the emergency period, the number of small-scale iron and textile industries, producing by old-fashioned methods, be increased? Will not such a program saddle the new China with an inefficient industrial plant and inhibit real industrial progress?

There is not necessarily a dilemma here between emergency needs and long-term policy. The need for industrial goods in China is so great that there is little danger that expansion of small-scale enterprise in the immediate post-war period would hamper the development of large-scale industry. There is room for both. It may also be that small-scale industries will be the most efficient in many instances. The successes of the Chinese Industrial Cooperatives suggest that the Chinese peasants are amenable to cooperative industry on a small scale.

Industrialization will be impossible without the willingness of the Chinese peasants, since they are 80 percent of the population. An attempt to build suddenly a number of Detroits and Pittsburghs in China may prove a failure. Shanghai, the only Chinese counterpart of a western industrial center, has not been an encouraging precedent. It would be most unfortunate if masses of

(Continued from page 39)

diminished by the end of the war, and must be partially restored during the emergency period with the United Nations' help. Chinese authorities estimate that the restoration of damaged plants and the construction of a few essential new plants will require the import of some 20,000 tons of supplies. Several thousand tons of iron reinforcing bars will be required, some of which can perhaps be produced in China itself, depending upon the progress of the iron industry. Since Chinese production of reinforcing bars was extremely small before the war, it is unlikely that imports can be dispensed with altogether. The same is generally true of hardware, wires, nails, and plumbing fittings.

people jumped from the frying pan of rural poverty into the fire of urban slum life. Furthermore, it is doubtful whether industrialization such as England, Germany, and the United States have known is possible in China, assuming that it is desirable. China has no more than a fair share of the world's iron and coal reserves, and in general her mineral resources (which, at the present stage of technology, seem to play a determining role) are not large enough to indicate that she will ever be a rival of the great industrial powers. It is more likely that she will remain predominantly agricultural. The fact that her coal and iron resources are scattered widely, and that it will be years before she can have a highly developed network of transportation, also suggests that at the outset her factories will probably be scattered, depending upon local raw materials and local markets.

Secondly, rehabilitation of industry during the emergency period must accord with long-term plans for proper geographic distribution of industry in China. The seaboard, and particularly the city of Shanghai, has had far too great a share of China's industry. As a result of the war, and of deliberate planning, the present tendency is to diminish this unwholesome concentration of industry in Shanghai by creating industry in the pioneer west. Efforts at rehabilitation in the immediate post-war period, while directed to the restoration of industry in Shanghai as a relief measure, must also be designed to encourage development in new areas where industry will ultimately be needed. Here again, the Chinese Government alone is capable of deciding what the proper balance should be.

Thirdly, international agencies responsible for any part of industrial rehabilitation in China should take into account the new role of China, or specifically, of the Chinese Government, in her own industrial development. China is no longer an open field for foreign exploitation. The announced policy of the Chinese Government is that industrialization of China will be undertaken for the benefit of the Chinese people as determined by their government, with whatever technical advice from abroad it may seek. The Chinese Government has been responsible for what progress there has been during the war toward industrialization in the west, and indeed the government itself owns a large part of Free China's industrial plant. The Chinese Industrial Cooperatives' ventures are also highly significant. Thus, private enterprise, and

especially foreign private enterprise, does not seem destined to operate independently of governmental control.

In the fourth place, the problem of restoring and increasing Chinese industry at the expense of Japanese industry will arise in the period of rehabilitation. China will be in desperate need of certain machinery, such as spindles and steel mill equipment. Japan, highly industrialized, and gorged with the spoils of the East, will be a ready, a quick, and a cheap source for many items sorely needed by her erstwhile victim. Considerable industrial equipment could be moved across the sea to China. But it may be unwise to strip Japan of all her industrial plant and so reduce her to beggary. The line will have to be drawn somewhere. This question is posed merely to illustrate that rehabilitation has ineluctable political implications.

IX. UPROOTED PEOPLE

The vast numbers of Chinese torn from their homes by the exigencies of war will present a considerable problem to the relief authorities at the end of hostilities. Although no precise information about the numbers of displaced people in China exists, there is no doubt that many millions have left their homes as a result of the war. Famine, devastation, patriotism, and opportunities for employment have caused anywhere from 10 to 60 million people to trek into Free China from areas held by the Japanese. By the fall of 1943, some 9 million souls had fled westward from the Honan famine area alone, Dr. W. Mackenzie Stevens reported. Masses of peasants from Shansi, Suiyuan, Hopei, and Shantung have moved during the past six years to the Shensi-Kansu-Ningsia "Border Region."

Another great movement of people has taken place within Occupied China, as the war has brought devastation and hunger first to one area, then to another. The magnitude of this sort of migration is totally unknown. It is known that several hundred thousand refugees from Hongkong poured into the Pearl River delta region in Kwangtung, aggravating the food shortage there. It is further reported that the Japanese have been trying to reduce the population of Hongkong and Shanghai by persuading or forcing residents of these cities to move into the surrounding country.

Doubtless many of the uprooted people, both those who moved within Occupied China and those who fled to Free China, already

have returned to their old homes. Among the displaced population the proportion of city dwellers to peasants is higher than for the country as a whole. Most of the refugees and evacuees are young people, and probably the great majority are males. Old people and women have stayed behind in many cases. Thus, families have been separated. Since family solidarity is the basis of Chinese society, the reuniting of families is a matter of peculiar urgency.⁴¹

Although the mass uprooting of people in China has caused much suffering, its effects have not been so serious as in Europe, where displaced people have been mostly working as virtual slaves for the Nazi war machine, or else have been living without employment as evacuees from war areas. In China, most of the refugees who fled into Free China have found employment there, and are probably making as good a livelihood as they did at home. Free

⁴¹ Few people have suffered a more cruel fate during the past unhappy decade than have some 20,000 German refugees who finally reached Shanghai, finding no other place of refuge. While some of them had managed to move elsewhere before the Japanese took over Shanghai, at least 10,000 were caught and still remain there, concentrated in refugee camps, subsisting on meager rations, deprived of employment and of hope. As soon as Shanghai is free again, these unfortunate people must be allowed to find homes in other parts of the world. This is part of the world-wide problem of refugees.

It is estimated by the Chinese newspaper Ta Kung Pao that 639,909 Japanese nationals were living in China at the end of September, 1943, two-thirds of them in northern China, and most of the rest in central China. Over half of the total number are in large cities. Peiping and Shanghai each have over 100,000 Japanese residents. It is thought that the majority of these Japanese are campfollowers and adventurers. If reoccupation takes place with great speed, numbers of Japanese may find themselves trapped in a hostile country. International aid

in solving this problem may be necessary.

The many thousands of orphaned, lost, or abandoned children of China present a pitiful and an urgent problem to the relief authorities. There are perhaps 30,000 children in orphanages, and it is thought that there should be 10 times that number. Additional separate centers for children will have to be established by the Chinese Government or by UNRRA. The case history of each child should be recorded at the earliest possible moment, and great efforts made to return him to his family. Programs of education and recreation will help to erase memories of the frightful experiences that most of the children will have undergone.

As a result of the Japanese seizure of southeastern Asia, almost 300,000 Chinese who had been living in Indo-China, Burma, Thailand, and adjacent countries have returned to China. (In addition, 50,000 have entered China from Japan and Korea, and over a million fled from the foreign colonies of Hongkong and Macau.) Among these Chinese were several thousand merchants with businesses in southeastern Asia. They are anxious to go back to their former enterprises as soon as the war is over. This has given rise to an international political problem, since the governments in some of the other countries will be loath to readmit the Chinese.

China, a pioneer country, is sorely in need of labor. The new arrivals have accordingly settled down in most cases to some sort of occupation which they found on their own, or with the help of the government, private agencies, or the CIC.

Just as the present situation among Chinese refugees is less desperate than the plight of European refugees, so the solution of the problem will not be so difficult in the post-war period, except insofar as there may be greater numbers involved. In the first place, perhaps one out of every 5 or 10 of the migrants to Free China will stay there after the war, having found new opportunity for livelihood.⁴² Secondly, most of those who will return are peasants. They will be able to start life and labor anew on their old holdings without insuperable difficulties. In Europe, a much larger proportion of the refugees will be returning to cities, where housing, food, and employment will be scarce, and social life chaotic. The Chinese urban refugees, too, will confront these unpleasant problems. The need for transient camps, feeding stations, and emergency shelters for refugees has already been cited. These various services will be especially required in the large cities.

In some places, camps or settlements of a semi-permanent nature will have to be established to care for people who for one reason or another cannot make their own way in the world immediately. (Homeless children, old people, invalids, and European refugees may be in this category). A corps of trained personnel will be needed for each of these camps, and in addition, considerable equipment of diverse sorts, such as office supplies, baby bottles, tools, and radios. No notion of the total bulk of such equipment is possible at the present, because the number of camps needed is unknown.

Such refugee camps have generally been very disagreeable places, where physical privation, a prison atmosphere, enforced idleness,

Although the pioneer provinces should undoubtedly have a larger share of China's population than in the past, development of these regions is not the only, or even the chief means of effecting a better distribution of population in China. A cheaper and quicker means of resettlement is the reclamation of certain

regions relatively near areas of dense population.

The present diaspora into western China has important long-run implications for the nation. The influx of refugees is hastening the development of western China (particularly Szechwan, Kansu and Yunnan). Along with the industrialization of the area, this redistribution of population should lead to an improved balance between population and resources for China as a whole. Such a redistribution of men and industry must be subject to guidance by a governmental authority which sees the whole problem.

and a sense of insecurity have undermined the spirit of the inmates. The harmful features of camps can often be mitigated if the administrators are men of real human concern, and are willing to exercise imagination. In providing such administrators, private agencies have a highly important role to play. China's need for building repairs and for finished clothing will be so great that it should be possible to mobilize both men and women in the camps in some useful activity, thereby defeating the curse of idleness.

X. ADMINISTRATIVE PROBLEMS

The job of rehabilitation and relief is even greater than mere considerations of need, supply, and transport indicate; for the administration of such a program will call for immense effort and deep wisdom. First of all, there will be political obstacles to overcome; second, and closely enmeshed with politics, is the task of deciding who shall direct the various programs, what the main policies shall be, and who shall administer them. And finally, decisions on how the whole program is to be financed must be made.

Political Questions

1. THE THREAT OF SOCIAL CHAOS—Lack of established government and social disorganization make the administration of a rehabilitation program exceedingly difficult. Relief authorities must have well-constituted officials to deal with, supplies must be safe from seizure and pilfering, and above all there must be cooperation from the local population if distribution is to be successful. In an area where no government exists, relief officials tend to get involved with rival factions struggling for power, each of which will try to control the all-important relief supplies. The more the social fabric of a community or nation has been destroyed, the less can reliance be placed on local help for administration, and the greater must be the imported "relief" staff.

These conditions may prevail to some degree in parts of China from which the Japanese have been ejected, especially in the cities. However, it seems probable that China will suffer much less than Europe in this respect. In the country districts, local government has continued almost undisturbed, even in areas ostensibly under Japanese control. And even in the cities, Chinese government will probably be restored much more quickly than in Europe. Many Chinese officials have been left unmolested in their offices,

so that with the return of Chinese hegemony, a complete overturn of local officials is improbable. There will doubtless be local uprisings, and retribution visited upon Japanese overlords who allow themselves to be caught; but real anarchy will not prevail, unless the Central Government fails to maintain the unity of the country.

Relief itself will be an important means of restoring orderly society. Availability of food will reduce the probabilities of looting and banditry. Re-establishment of industry, by providing employment, will reduce social unrest. Relief supplies, however, should not be used for political purposes. Help must be given on the basis of need alone. It is particularly important that UNRRA supplies be distributed in this impartial manner because tremendous pressure will undoubtedly be brought to bear by some local potentates. It would be disastrous if an international agency or its supplies became pawns in local or national struggles for power.

2. POLITICAL OPPOSITION TO REHABILITATION AND RELIEF—There are powerful interests in China who, for selfish reasons, will try to thwart some of the measures necessary for ending the suffering of China. Big landowners, who wield a great influence in the government, have in the past opposed the various measures of agricultural reform which are a necessary part of postwar agricultural rehabilitation. City merchants may oppose price control of scarce commodities. Speculation may prevent the best use of scarce capital which is needed for developing Chinese industry, agriculture, and transport. Corrupt and venal officials may try to profit from human misery. Such abuses could well make rehabilitation a mockery unless they are firmly checked.

3. THE CHINESE ATTITUDE TOWARD FOREIGN AID AND ADVICE—Nationalistic sentiment is strong in the Chinese Government today and may be stronger at the end of the war. Any kind of patronizing attitude on the part of the countries which

help her must be avoided.

The Chinese people themselves are used to foreign aid, and look upon the United States as inexhaustibly rich. Since the inexhaustibility of any kind of supplies is a pure myth, it is important that no foreign organization allow itself to be imposed upon by clever suppliants. If anyone is allowed more than his share, someone else in greater need will go without. The foreign relief administrator must be utterly impartial even if it means turning a deaf ear

to some calls for help. In the end, he will gain the respect of the Chinese for this attitude.

Despite nascent nationalism, the foreign consultant and adviser is still desired and honored in China, provided that he has been requested by China, and works under general Chinese direction.

Direction and Execution of the Rehabilitation and Relief Program

- 1. CHINESE CONTROL—It is too early to suggest a blueprint for the administrative machinery of relief and rehabilitation in China. But the Chungking Government has given much thought to the matter, and has made the following tentative suggestions in a report to UNRRA:
 - (1) There will be a National Relief and Rehabilitation Administration established directly under the Executive Yuan, which latter by constitution has authority not only over the various Ministries and agencies of different grades within the Central Government, but over all the Provincial and local governments. The Director of the Administration will be given the standing of a Cabinet Minister in the Executive Yuan.
 - (2) The Administration will have sole authority over the policies, operations and all related matters of relief and rehabilitation in the country. It will undertake the conduct of relief and the programs of Welfare Services and Displaced Persons, but will not directly undertake the work of rehabilitation. The latter will be entrusted to the existing government agencies like the Ministry of Communications, the Ministry of Economics, the Ministry of Agriculture and Forestry, the various River Conservancy Boards, et cetera, or private institutions authorized by the Administration.
 - (3) The personnel of the Administration will be co-opted so far as possible from the existing government agencies like the Ministry of Social Affairs and all its provincial and local bureaus, the National Health Administration, the National Relief Administration, and the Provincial and local governments.
 - (4) The Administration will request UNRRA to furnish technical and administrative personnel who will serve as technicians as well as depot masters for UNRRA supplies, accountants, inspectors, et cetera, together with the Chinese administrators and experts.⁴³
 - (5) In localities where private relief and welfare agencies have been working, the largest possible use will be made by the Administration of their machinery and personnel and resources. These existing agencies include such foreign and Sino-foreign institutions as the United China Relief and the organizations affiliated therewith, the United Aid to China Fund, the American, British and Canadian Red Cross, the Friends Ambulance Unit and the various missionary groups and such Chinese institutions as the Chinese Red Cross, the New Life Movement, the Friends of the Wounded Soldiers, the National Child Welfare Association, the National

⁴⁹ Editor's Note: UNRRA will exercise some control over those parts of the program for which it furnishes funds or supplies. China itself will have a potent influence in UNRRA's decisions and activities in the Orient.

Association for Refugee Children, the Chinese Industrial Cooperative, local

charity associations, etc.44

The Chinese Government will consult with UNRRA from time to time with regard to matters of organization and procedure that are of concern to UNRRA under the terms of the relevant agreements.

2. UNRRA's ROLE—One of UNRRA's most important tasks in behalf of all countries will be in the procurement of supplies and their apportionment among different claimants. This is an extremely complex matter, and, of course, UNRRA will work largely through other procuring agencies.

The field operations of UNRRA in China are subject to the provisions of the following UNRRA resolution adopted at the Atlantic

City Conference in November, 1943:

In the case of a liberated area in which a government or recognized national authority exercises administrative authority, the Administration will operate only after consultation with, and with the consent of, the government or recognized national authority concerned regarding the form of activities to be undertaken by the Administration within the whole or part of such area.

The functions of the UNRRA staff in China will not include much actual administration of relief. Rather, they will be to review the projects for which UNRRA's help has been requested, to advise the Chinese relief authorities, and to inspect the projects aided by UNRRA.⁴⁵

3. THE ROLE OF PRIVATE AGENCIES AND OTHER EXPERIENCED BODIES—The Chinese government plans to use the resources and experience of private agencies, both Chinese and foreign. Chinese private agencies will probably tend to assume more and more of the functions traditionally exercised by foreign organizations. The National Red Cross Society of China will be of especial importance. Meanwhile, however, the foreign groups have a significant role.

⁴⁴ Editor's Note: The Chinese government lists 58 nation-wide private welfare agencies operating in China, not including Catholic and Protestant missions. Of these 58, 35 are Chinese organizations, 16 are foreign, and 7 are Chinese-foreign. In addition to these national organizations, numerous provincial and local welfare agencies exist.

45 In reserving this latter right, UNRRA would by no means be impugning the competence and good faith of the Chinese Government. UNRRA expects to inspect projects which it aids in any part of the world. Past experience shows that graft and mismanagement are apt to flourish at the local level of Chinese administration. The mismanagement of relief during the Honan famine in 1942 indicates the need for inspection. Whenever China has cooperated with foreign groups in relief work, there has never been a major scandal.

A number of private foreign agencies have a distinguished record of service to China, which in many cases has continued despite the war, even in Occupied China. Workers for private agencies have a distinctive contribution to make in sharing the lives of the people whom they are trying to help, thus advancing the cause of international understanding. The majority of the private foreign welfare institutions have been Christian mission bodies or were in some way connected with Christian churches. Many Chinese, Christian and non-Christian alike, have come to rely on them during emergencies. They will be of even greater value to China after the war.

Rehabilitation and relief will be intrinsically a governmental undertaking; the size of the job alone necessitates this. All programs must be coordinated. This by no means implies that private agencies must turn over their personnel and other resources to officials and be swallowed up by a large governmental machine. Private agencies should maintain their identity as much as possible and be granted as much responsibility in executing their tasks as is consistent with general planning. In practice, this means that private agencies can be assigned a certain task by the over-all planning body, be furnished the necessary supplies, and be allowed to carry out the job as their experience and wisdom dictate, subject, of course, to inspection by the official body. Not only should private agencies be allowed to administer welfare programs; their voices should also be heard in the official policy-making and planning agency.46

Most of the private foreign aid to China has come from the United States in recent years. American aid in 1944 amounted to over 9 million American dollars. Up to 1943, British contributions have been substantial; and there have been gifts from India, Canada, Australia, and New Zealand as well. Six agencies are responsible for virtually all the American aid reaching China at present. Their activities are coordinated by the United China Relief, which is a member of the National War Fund. The six participating agencies no longer make separate appeals to the public for funds for Chinese relief. United China Relief is the only agency now making such appeals. Most of the money raised by UCR is turned over to the six operating agencies; and the rest is used for UCR expenses, including upkeep of a field staff in China, which inspects the work of the cooperating agencies and sends reports to the New York office.

The projected allocation of UCR funds from October 1, 1944, to September 30, 1945, is as follows:

Medicine and health	\$3,131,581
Disaster relief, economic reconstruction and social	. , ,
rehabilitation	2,684,212
Education	1,789,477
Child Welfare	1,342,106
Labor projects	700,000
Relief in northwest provinces	403,336
(Continued on page 50)	,

In addition to private foreign relief agencies, there are other groups whose experience will fit them to play an important part in the rehabilitation of China. Frequent mention has already been made of the Chinese Industrial Cooperatives. Although the CIC play a very minor role in China's present economic life, their aims, philosophy, and methods are significant. Their present aims are certainly consonant with China's need: to enable as many people as possible to earn their livelihood, to increase the production of badly needed goods, and to foster local industry owned and controlled by the workers themselves. Considering the economic backwardness of China, and the 85 percent illiteracy rate, the achievements of the CIC are remarkable.

4. PERSONNEL—No institution can be better than the people in it. Much depends upon the care and wisdom with which personnel for administering Chinese rehabilitation and relief is selected.

Two types of personnel will be needed, technical and administrative. The technical personnel can be composed partly of Chinese; but many foreigners will be needed, particularly from America. The great majority of foreign technicians would be requested by the Chinese Government, and would be working under Chinese direction. The Chinese Government will doubtless specify just what types of technical personnel it wants, but will in many cases have to rely upon other governments or upon foreign organizations actually to select the men to fit the specifications. It is important, therefore, for foreigners to understand what sort of men will be acceptable and efficient. Beyond technical competence, other skills and qualities are needed. Whenever possible, men familiar with the Chinese language should be found. More important, the foreigner must have real sympathy for the Chinese, and the ability to win their confidence. Chinese are sensitive to the motives impelling foreigners to come to China, and will not cooperate with people who they think are desirous of making a fortune from China's misfortune, or of enhancing their own prestige. The Chinese are impressed by men who have sacrificed their personal interests in order to serve China. Wherever possible, foreign technicians should be people with previous experience in China, as long as they do not have a patronizing attitude toward the Chinese.

(Continued from page 49)

The six participating agencies and their programs are as follows: The American Bureau for Medical Aid to China, American Committee in Aid of Chinese Industrial Cooperatives (Indusco), Associated Boards for Christian Colleges in China, American Friends Service Committee, China Aid Council, and Church Committee for China Relief.

A small number of administrators from abroad will be needed. The qualifications mentioned above are even more vital for the administrator, since dealing with people is so important a part of his job. He must be able to gain the confidence of the common

people as well as of the officials.

What are the sources from which personnel for service in China can be drawn? All Chinese sources ought to be tapped to the greatest extent possible, and foreigners used only to the extent that there are not enough qualified Chinese. A number of technicians will be found among the Chinese who have studied abroad, and in the staffs of technical schools in China. The Chinese Civil Service can furnish administrators. Some Chinese experienced in welfare work will also be available from mission staffs.

The need for foreign technical personnel can be met from several sources. First of all, there are a number of foreign advisors in China already. Medical missionaries driven out by the Japanese will in many instances be eager to return. Staff members from foreign relief agencies now operating in China will often want to stay in China during the post-war period, and more can be recruited by the agencies' headquarters. The same sources can be used to meet the demand for foreign administrators.

Even if all the sources are used, there still will be a shortage of qualified personnel, particularly Chinese. Whatever technical or administrative training can be initiated now will be to the future advantage of China.

Finance

The total cost of the relief and rehabilitation program as outlined in this report is thought to be about \$3.5 billion, in terms of American currency. Actual imports will cost about \$2.5 billion, and internal expenditures another \$1 billion. Internal expenditures will be for Chinese goods, property, or labor. China is asking UNRRA to contribute 37 percent of the emergency imports, or less than a billion dollars' worth.⁴⁷

⁴⁷ China will not be expected to contribute to the operating fund of UNRRA, because its home territory has been occupied by the enemy. It was decided at the Atlantic City Conference of the UNRRA Council that only the member governments whose home territories were not occupied will be asked to pay. However, China, along with all other members of UNRRA, will pay part of the administrative expenses. China's share was set at 5 percent. The administrative budget for 1944 was 10 million American dollars. China's allocation was therefore one-half million dollars.

The size of this request is based on a consideration of China's capacity to pay for imported requirements. It is believed that China cannot manage to finance more than the other 63 percent, in addition to the internal costs. Even so, Chinese financial limitations may make impossible the accomplishment of the program within 18 months. The Chinese Government, in its report to UNRRA, states that if UNRRA does contribute 37 percent, the financing of the other 63 percent will have to come mostly from the following sources:

(1) Existing foreign exchange resources.

(2) Current assets obtained from private export trade.

(3) Foreign credit.

It is important that China be enabled to import as much goods as possible, to combat the inflation which now menaces her well-being. Aid in kind would be of great benefit, while purely financial aid would tend to aggravate inflation, unless offset by the purchase with such aid of an equivalent volume of goods from outside the country.

Although China has considerable resources of foreign exchange at present, there will be many demands upon them after the war. China needs these balances to help finance long-term reconstruction, and to stabilize the currency. She should not be forced to spend them all buying relief supplies. In order to increase the amount of foreign exchange available for the purchase of relief supplies, China's foreign trade should be increased as much as possible after the war.

After the last war, European relief was financed largely by relief loans from the United States, which could not be repaid without a severe strain on the economies of the recipient countries. As a matter of fact, most were not repaid. The situation caused hard feelings on both sides of the Atlantic. The trouble lay in the assumption that relief is a business proposition to be financed by business methods. On the contrary, relief is unproductive of direct financial returns; its purpose is to save lives and to assure a lasting peace. These goals are not measurable in dollars and cents, but are infinitely more precious.

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